Kingdom Of Saudi Arabia
Ministry Of Health
The General Directorate Of Health Affairs in Riyadh Region
Afif General Hospital
Infection Prevention & Control Department



INFECTION CONTROL MANUAL

2019 - 2022

V.4


بسم الله الرحمن الرحيم

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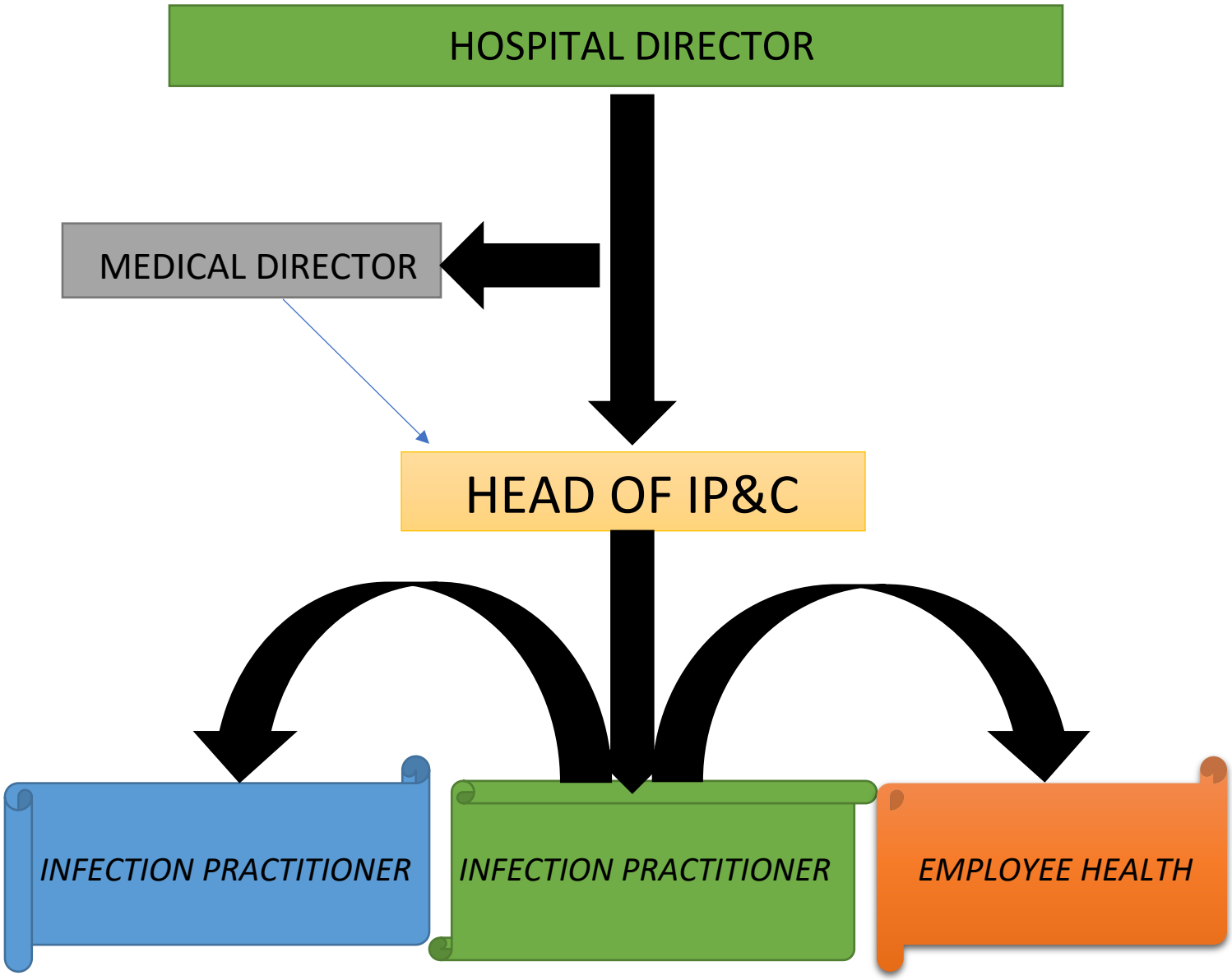
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ORGANIZATION CHART FOR INFECTION CONTROL DEPARTMENT
AFIF GENERAL HOSPITAL



Afif General Hospital

Link Nurses



DR. SHER AGHA
HEAD OF INFECTION CONTROL

Dr. Sher Agha
Head of IP&C

Dr. Ahmed Hasan
Medical Director

DR. AHMED HASSAN
MEDICAL DIRECTOR
SC No: 13-R-M-3046094

Dr. Adil Moteb Bin Omairah
Hospital Director

SCOPE OF SERVICE			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
SCOPE OF SERVICE			SOS-IC-001(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	SOS-IC-001(3)	4
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0. MISSION

1.1. To continuously improve the health and safety of patients and provide by employing the principles and practices of infection prevention control and epidemiology.

2.0. VISION

2.1. To reduce infection rates in Afif General Hospital through education of patients and healthcare providers about infection control practices.

3.0. VALUES

3.1. We work as a team to reach our goals (teamwork) and always striving for improvement by looking for new ways to do things and solve problems. We do respect our colleagues, patients and community and acting with honesty in accordance with our core values.

4.0. SCOPE OF SERVICE

4.1. Activities performed by the Infection Control Department members fall within the current Infection Prevention & Control standards and these include the following:

4.1.1. Prevention and control of healthcare associated infection in patients and healthcare workers.

4.1.2. Target based surveillance/data management and investigation of outbreaks.

4.1.3. Monitors and coordinates infection prevention and control practices with physicians, nurses and others as appropriate to IC practices

4.2. Prevention and control of communicable diseases.

4.3. Review of policies and procedures related to Infection Control.

4.4. Education of hospital teams, patients, visitors and families about infection prevention and control procedures.

4.5. Orientation of new recruits on infection prevention and control matters and issues.

4.6. Environmental monitoring (waste management, food service, water and air monitoring).

5.0. HOURS OF SERVICE

5.1. The infection prevention and control department operate from Sunday to Thursday on a day shift only (7:00am to 4:30pm).

5.2. Management of sharp injuries/blood and body fluid exposure after duty hours, during weekends and holidays-management done in ER and the injured employee should report to the employee health clinic on the next working day.

6.0. WORKLOAD DATA

6.1. Infection prevention and control at AGH allows for a systematic or coordinated and continuous approach.

6.1.1. CBAHI standards, OSHA and MOH regulations are implemented and followed.

6.1.2. Patient care activities include Medical, Surgical, Special Care Units, Operating Room, Post Anesthesia, OPD, Obstetrics, Newborn Nursing and Pediatrics.

6.1.3. Surveillance activities hospital wide and includes targeted surveillance in high risk areas.

6.1.4. HCW's post exposure management of sharp and needle stick injuries, tuberculosis and chicken pox.

6.2. Monitoring of infection prevention and control activities for:

6.2.1. Isolation precautions

6.2.2. Hand Hygiene

6.2.3. Personal Protective Equipments

6.2.4. Waste disposal/Sharp disposal

6.2.5. Handling of soiled linens

6.3. Education

6.3.1. Infection Prevention and Control Lectures

6.3.2. Orientation of new recruits

6.3.3. In-service Education for Infection Prevention and Control Staff

6.4. Implementation of Employee Health Program

6.5. Participating in an organizational pro-active education program in an effort to reduce and control spread of infection (Hand Hygiene Campaign)

6.6. Interacting and reporting to proper authorities.

6.7. Statistical reports prepared every month

7.0. STAFFING

7.1. Infection Control Head – 1

7.2. Infection Control Practitioner – 1

7.3. Infection Control link staff in each dept.

7.4. CSSD Technician – 1

7.5. Waste Management Department Head – 1

7.6. Epidemiological technician -1

8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		05 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		12 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC 1-1	April 1, 2012
Replaced by	SOS-IC-001(2)	April 1, 2014
Deleted	SOS-IC-001(3)	April 1, 2016
Replaced by New Policy and Procedure	SOS-IC-001(4)	April 1, 2019

TERM OF REFERENCE			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
INFECTION CONTROL COMMITTEE			TR-IC-001(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	TR-IC-001(3)	4
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL MEMBERS OF INFECTION CONTROL COMMITTEE AND INFECTION CONTROL PRACTITIONER	

1.0 PURPOSE:

1.1. To establish a system that is well coordinated and organized in order to supervise the infection prevention and control activities of health care workers and other ancillary services of Afif General Hospital.

2.0 DEFINITION (S):

2.1. ***Infection Control Committee*** – a committee composed of healthcare workers represented by selected departments as its members that serve to monitor clinical practice, set standards of practice and identify areas of changes with regards to infection and the need to take control measures.

3.0 POLICY STATEMENT(S):

3.1. The infection control committee shall have established policies and procedures related to infection control within the hospital.

3.1.1. Policies and procedures shall be revised at least every 2-3 years to ensure that the infection control procedures are appropriate to the service needs and in line with current practice and body of knowledge.

3.1.2. Revision and update of policy shall only be done as necessary but should be ensured that any changes are known throughout the hospital.

3.2. The infection control committee shall be chaired by the Hospital Director/ Medical Director

3.3. Members of the committee shall be represented by different departments of the hospital in which each member shall be issued letters of appointment signed by the proper authority.

3.4. The committee shall meet quarterly. The time and day of meetings shall be voted on and approval by the committee members.

3.5. The decisions of the Infection Control Committee shall be binding in the event of questions in relation to infection control policy and procedures are raised.

4.0 EQUIPMENT/MATERIAL/FORMS:

4.1. Committee formation order

4.2. Minutes of the meeting blank form

5.0 ROLES AND RESPONSIBILITIES:

5.1. Infection Control Committee Statement of Authority – acting through the Chief Executive of the afif general hospital, the Infection Control Committee has the authority to:

5.1.1. To implement the policies and procedures within the hospital in matters of Infection Control.

5.1.2. It has the authority to investigate potential or real episodes of serious hospital acquired infections and where necessary, to close wards and redirect wards.

5.1.3. It has the authority to formulate the infection control team within the hospital.

5.1.4. Supervision of standards of professional care with regards to infection control.

5.1.5. Education and orientation program for professional staff.

5.1.6. Surveillance of employee's health.

5.1.7. Standards of hospital domestic cleaning and food hygiene.

5.1.8. Management of visitors in isolation circumstances.

5.1.9. Establish and supervise the Infection Control Team.

5.1.10. Submit activity report and statistical data to the Ministry of Health as required.

6.0. PROCEDURE:

6.1. Meeting

6.1.1. The infection control committee secretary prepares notification letter, distribution list and agenda for each committee meeting.

6.1.2. Notification letters, agenda for meeting along with minutes of the previous meeting are distributed to committee members at least one week before the scheduled meeting.

6.1.2.1. Venue for the meeting is usually at the Meeting Room MSW/ quality meeting room in the TQM dept.

6.1.2.2. Meeting usually is held for one hour but time extends as necessary.

6.1.3. The infection control committee document minutes of the meeting.

6.2. Attendance

6.2.1. Any member who cannot attend is to be represented by his/her designee.

6.2.2. Each member signs proof of attendance in every meeting.

6.2.3. The committee documents and monitors absenteeism.

6.2.4. An approved minute of the meeting is provided to all members.

7.0. RELATED POLICY / CROSS REFERENCES:

7.1. Infection Control Committee Term of Reference.

7.2. Association of Professional in Infection Control and Epidemiology, Inc. 3rd Edition, 2017: Infection Control & Prevention Program. Chapter 1: pp.1-1 to 1-10.

8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
Review By	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		05 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		12 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC 48-1	April 1, 2012
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Replaced by New Policy and Procedure	TR-IC-001(4)	April 1, 2019

Hospital Stamp

وزارة الصحة
Ministry of Health

إعطاء صلاحيات
Statement of Authority

تاريخ الإصدار:

Date of Issue:

إن لجنة مكافحة العدوى بالمستشفى، من خلال رئيسها واعضائها، معطاة كافة الصلاحيات لاتخاذ أي إجراءات مناسبة للوقاية من العدوى والسيطرة عليها.

The Hospital Infection Control Committee (ICC), through its chairperson and members, is vested with the responsibility and authority to institute any appropriate prevention and control measure when it is reasonable to presume that an infectious risk to any patient or personnel exists.

Approvals:

DR. SHER ALAM
HEAD OF INFECTION CONTROL

مدير قسم مكافحة العدوى
Infection Prevention and Control Director

DR. AHMED HASSAN
MEDICAL DIRECTOR

المدير الطبي
Medical Director

مدير المستشفى
Hospital Director

KINGDOM OF SAUDI ARABIA
MINISTRY OF HEALTH
GENERAL DIRECTORATE OF HEALTH AFFAIRS RIYADH
AFIF GENERAL HOSPITAL
JOB DESCRIPTION

JOB DESCRIPTION			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
JOB DESCRIPTION OF INFECTION CONTROL DIRECTOR			JD-IC-001(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	JD-IC-001(3)	3
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

REPORTS TO: Hospital Director/Medical Director

OVERALL RESPONSIBILITY

Directs and manages the infection control program to reduce the risk of hospital acquired infections for the patients and employees of Afif General Hospital.

DUTIES AND RESPONSIBILITIES

1. Directs the investigation of communicable disease exposures and outbreaks by assessing occurrences, implementing control measures, and nosocomial and community infection.
2. Manages the staff within the Infection Control department including evaluations and counseling as needed.
3. Develops, implements, and manages processes to comply with MOH regulations and CBAHI standards related to infection control including National Patient Safety Goals.
4. Ensures construction projects meet Infection Control standards.
5. Creates and updates system wide policies related to Infection Control and the Infection Control manual
6. Work with Nursing directors and managers to implement processes to prevent hospital acquired infections
7. Remains up to date on all state legislation.
8. Organizes and co-leads the activities of Infection Control Committee meetings by preparing the agenda, assembling meeting documents, following up on meeting actions.
9. Ability to provide coverage for Infection Control Practitioners by the following:

a. Coordinates surveillance of infections by reviewing laboratory reports, census data and medical records in order to define the presence of nosocomial and community infections.
b. Plans and coordinates special infection control studies and projects related to problem areas of performance improvement findings in order to prevent and control infections.
c. Complies periodic written statistical reports, special study summaries, and report to Medical Committee and Performance Improvement Committee, and additional reports to hospital departments, administration and committees as required to communicate and document infection control data and findings.
d. Coordinates the reporting of communicable diseases and any unusual outbreaks of infections to MOH.
e. Provides consultation to Employee Health Service regarding infection risks associated with hospital setting. Recommends methods of detection, prevention and control of infections in specific employee illness and exposure situations.
f. Facilitates discharge and placement of infected/ isolated patient as requested

10. Designs infection control education in orientation programs and other specific continuing education and community education program in order to ensure adequate infection control knowledge.
11. Evaluates products and equipment for efficient, cost effective contribution to patient care and infection control.
12. Serves as a member of hospital committees including Safety and other committees as appropriate, by represent the infection control program and serve as an infection control resource. Assures patient safety, privacy confidentiality as appropriate or required.
13. Liaison to local health department for communicable disease follow-up.
14. Evaluates products and procedures for infection risk/ benefit.
15. System administrator for Infection Control database.

SKILLS AND SPECIFICATIONS

1. Highly energetic individual to develop teaching materials and training programs.
2. Able to plan and obtain objectives to ensure the development of service.
3. Knowledge of techniques for data collection.
4. Able to conduct training and exercises.
5. Able to lead staff and influence them.
6. Able to work alone and as a part of a team.

8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
Reviewed by	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	05 MAR 2019
	Dr. Abdulkarim Nasser Al Otaibi	Human Resources Director		05 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		14 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

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Initial Policy and Procedure	IC 2-1	April 1, 2012
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Replaced by New Policy and Procedure	JD-IC-001(4)	April 1,2019

KINGDOM OF SAUDI ARABIA
MINISTRY OF HEALTH
GENERAL DIRECTORATE OF HEALTH AFFAIRS RIYADH
AFIF GENERAL HOSPITAL
JOB DESCRIPTION

JOB DESCRIPTION			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
JOB DESCRIPTION OF INFECTION CONTROL PRACTITIONER			JD-IC-002(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	JD-IC-002(3)	3
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

REPORTS TO: Infection Control Director

OVERALL RESPONSIBILITY

1. To perform a variety of professional duties involved in the prevention and control of nosocomial infections.
2. To plan, develop, direct, implement and evaluate infection control activities throughout the facility.

DUTIES AND RESPONSIBILITIES:

1. Conducts regular rounds in all hospital departments to discuss, monitor and follow the infection control practices with staff personnel.
2. Collects data on nosocomial infections from all hospital departments and maintain records for each case.
3. Conducts continuous surveillance to detect the source of infection for prevention purposes.
4. Takes culture swabs regularly from high risk areas to hospital laboratory, obtains the microbiology culture results from the hospital laboratory and reports positive findings to responsible persons.
5. Follows and investigates the incidences of nosocomial hospital infections, generates reports and forwards copy of the reports to the Chairman of Infection Control Committee and Director of Nursing.
6. Ensures the availability of place and supplies required for isolation.
7. Implements educational programs to provide staff with knowledge and skills regarding infection control practices and preventive measures to provide a safe environment for clients and employees.

8. Monitors the implementation of preventive measures, provides guidance to staff and counsels them as per the need.
9. Participates and assists in the organization of regularly scheduled hospital Infection Control Committee meetings.
10. Prepares monthly statistical data for presentation in the hospital infection control meetings.
11. Reports hospital infection outbreaks to the chairman of infection control committee and Director of Nursing.
12. Reports any hindrances to implement the infection control practices.
13. Collaborates with CSSD staff in all matters related to sterilization and infection control practices.
14. Ensures the staff are free from infectious diseases.
15. Participates in continuous quality improvement initiatives, in-service education programs and unit meetings as assigned.
16. Initiates emergency, safety practices and fire safety measures as necessary.
17. Maintains appropriate MOH Nursing Competencies in line with continues personal professional development.
18. Performs other job-related duties assigned.

SKILLS AND SPECIFICATIONS

1. Highly energetic individual to develop teaching materials and training programs.
2. Able to plan and obtain objectives to ensure the development of service.
3. Knowledge of techniques for data collection.
4. Able to conduct training and exercises.
5. Able to lead staff and influence them.
6. Able to work alone and as a part of a team.

8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Ms. Mirriam Licuanan	Infection Control Nurse	MIRRIAM F. LICUANAN RN 0281568 # 184454	03 MAR 2019
Reviewed by	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	05 MAR 2019
	Dr. Abdulkarim Nasser Al Otaibi	Human Resources Director		07 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Mr. Khalid B. AlMutairi Director	09 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		14 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
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HOSPITAL PLANS (PLAN) DPP			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION INFECTION CONTROL STAFFING PLAN			POLICYNUMBER &VERSION PLAN-IC-001 (2)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
Dec 15,2020	Dec 14, 2023	PLAN-IC-001 (1)	4
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		INFECTION CONTROL DEPT.	

1.0 PURPOSE

1.1 The Infection Prevention & Control Department shall have agreed and implemented staffing plan which depends on the nature and work volume based on the latest Ministry of Health recommendations that aim at providing high quality service and maintaining patient's safety.

2.0 NATURE AND WORK VOLUME

2.1 Department Head
2.2 Infection Control Practitioners
2.3 Employee Health Nurse
2.4 Employee Health Physician
2.5 LINK I.C. Coordinators

3.0 DEMOGRAPHIC DATA:

3.1.1 Number of Beds= 130
3.1.2 Flow of Patients in ER= 300-400/Day
3.1.3 Admission= 20/Day Or 1800/ Year

4.0 ACTUAL STAFFING

4.1 The Infection Prevention & Control Department is composed of professional staff, well trained and has experience to provide good services. The team is consisting of the following staff:

STAFF CATEGORY	STAFF NAME	NO. OF STAFF	QUALIFICATIONS CRITERIA
IC Dept. Head	Dr. Sher Agha	1	- Specialist / Consultant in Infectious Diseases or Infection Control - The director of the IC department is full-time personnel qualified in infection control through certification, training or experience for 2 years at least.
ICP	1). Maher Masoud Abdullah Otaiby 2). Ms. Arya Subhashini 3). Ms. Hadeel Maleah Falah	3	- Bachelor of Science in Nursing preferred with 2-year experience as registered nurse - Graduate of accredited College or university - Have license of Saudi Council for Healthcare Specialties (SCFHS) - Preferably with national certification in Infection Control -IC practitioners are qualified in infection control through certification, training or experience one year at least. They should have updated infection control skills and knowledge through continuous medical education program and attendance of IC scientific activities.
EHN	1). Ms. Miriam Licuanan	1	- Bachelor of Science in Nursing with experience as registered nurse - Have license of Saudi Council for Healthcare Specialties (SCFHS) - Have the ability to communicate effectively and computer skills - Ability to interact courteously and tactfully with staff - Preferred past experience in Employee Health or Occupational Health
Employee Health Physician	1). Dr Shahinda Nasser	1	- ***Medical Doctors*** (MDs) that have completed study at the doctor's degree level and training at an accredited school -Have license of Saudi Council for Healthcare Specialties (SCFHS) - Have the ability to communicate effectively and computer skills - Ability to interact courteously and tactfully with staff - Preferred past experience in Employee Health or Occupational Health

5.0 PROPOSAL

5.1 To work in a smooth way, a 130-bed capacity MOH hospital, the infection control department requires (1) Department Head, at least two (2) infection practitioner nurses, one (1) employee health clinic nurse, one (1) employee health doctor for the employee health clinic and LINK IC (HEAD NURSES) coordinators in every unit to work according to the job description assign.

5.2 **MOH STANDARD:**

CATEGORY	No. of staff according to the MOH standard	No. of staff at present	SHORTAGE	REMARKS
I.C. Dept. Head	**1**	**1**	**-----**	
IC Practitioners	**2**	**3**	**0**	
Employee Health Nurse	**1**	**1**	**0**	
Employee Health Physician	**1**	**1**	**0**	
TOTAL	**5**	**6**	**0**	

5.0 WORKING HOURS SYSTEM

5.1 Working days, from Sunday to Thursday, 5 days per week from 7:30 am to 4:30 pm.

5.2 On call from 4:30 pm onwards day during weekdays.

5.3 On call during holidays and weekends with 2 days off.

6.0 RELATED POLICIES/ CROSS REFERENCE

Policy Title	Policy Number & Version
INFECTION CONTROL STAFFING PLAN	**PLAN-IC-001 (2)**
Effective Date	Dec 15,2020

6.1 ICD DEPT. STAFFING PLAN, AGH Version 1, 2018

6.2 Deputy Minister of Health for Health Affairs, memorandum # 1438-169865, dated 14/ 02/ 2017

7.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Mr. Maher Masoud Abdullah	I.C. Staff	Maher Masaud Al-Otaibi Infection Control Department	05 DEC 2020
Reviewed by:	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA HEAD OF INFECTION CONTROL	06 DEC 2020
	Mr. Khaled Bander Al Mutairy	TQM Director		08 DEC 2020
	Mr. Abdelkarim Nasser Al Otaiby	Human Resources Director		10 DEC 2020
Approved by	Mr. Abdul Aziz Bin Jaser Al Shalani	Hospital Director		13 DEC 2020

8.0 POLICY AND PROCEDURE HISTORY:

Policy and Procedure History:	Index &Version number	Date
Initial Policy and Procedure:	PLAN -IC- 001 (1)	May 15, 2018
Replaced by:	PLAN -IC- 001 (2)	Dec 15, 2020
Deleted:	PLAN -IC- 001 (1)	May 15, 2018
Replaced by New Policy and Procedure:	PLAN -IC- 001 (2)	Dec 15,2020

DEPARTMENTAL POLICY AND PROCEDURE (DPP)			
DEPARTMENT: INFECTION CONTROL			
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
INFECTION PREVENTION AND CONTROL PROGRAM			DDP-ICP-IC-001(2)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 31, 2022	DPP-ICP-IC-001 (1)	9
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR(CHAIRPERSON)		ALL HOSPITAL	

1. Definition:

1.1 In addition to the clinical aspects of the IPC program, the administrative components of the program are also essential to identify and to reduce or eliminate the risks of acquiring and transmitting infections among patients, HCWs and other staff, volunteers, students and visitors.

DEMOGRAPHIC DATA:

Number of Beds= 130

Flow of Patients in Er= 300-400/Day

Admission= 20/Day Or 1800/ Year

STATEMENT

The organization supports a comprehensive infection prevention and control program within the standards of the JCIA, the recommendations of the World Health Organization (WHO)and Centers for Disease Control and Prevention (CDC), and the guidelines of Ministry of Health (MOH).

FOR REVIEW BY M.D. & CHIEF DIST.

PURPOSE

To eliminate the risk of HAIs and work-related infections within the healthcare facility through the implementation of established guidelines and policies.

PROCEDURE

The infection control staff must have the knowledge and expertise in microbiology, epidemiology, sterilization and disinfection, infectious diseases, antiseptic usage, clinical practices and statistics. The Infection Practitioner functions in pivotal roles as educator, investigator, researcher, patient advocate, agent of change, consultant, statistician, sanitarian, role model, coordinator, and diplomat.

The program is executed by the Infection Prevention & Control (IPC) Department supported by the Infection Control Committee (ICC) through the following services:

- Education
- Consultation
- Outbreak and exposure investigation
- Environmental health
- Occupational health and safety (Employee Health)
- Act as liaison with MOH.

The program adapts the system of Standard Precautions, which emphasizes the need to consider all body substances as potentially infectious regardless of the patient's diagnosis. In adapting this approach to infection prevention and control, the ICC has carefully considered each policy and procedure in order to provide the following:

- Protection
- Feasibility
- Consistency
- Efficiency
- Cost Effectiveness

An ongoing program of theory and practice for continuing education is a major requirement and mandate. Therefore, education, reminders, and instructions on infection prevention and control practices and the principles of Standard Precautions are available for all categories of staff, patients, families and sitters through the IPC Department.

2. Key Concepts:

2.1 To outline the administrative components of the IPC program.

2.2 To establish the appropriate organizational structure within each level of the health care system and to have defined roles and responsibilities for key personnel.

2.3 To establish a system for monitoring and evaluation of the compliance to these components.

3. Key Terms:

IPC – Infection Prevention and Control

HCWs – Health Care Workers

ICPs – Infection Prevention Professionals

ICC – Infection Control Committee

HAI – Healthcare Associated Infections

JCI – Joint Commission International

IPC-RD – IPC Regional directorate

ICMC – Infection Control Monitoring checklist

IC – Infection Control

4. Principles:

Infection Control Programs are active on three levels:

4.1 **General Directorate of Infection Prevention and Control (GDIPC)** - The regulatory body of Infection Prevention and Control in the Ministry of Health.

4.1.1 GDIPC responsibilities (include but not limited to):

4.1.1.1 Create and update policies, goals, strategies, and national technical guidelines using the evidence available for IPC using up to date standards and protocols

4.1.1.2 Represents IPC in relationships with other national programs and key stakeholders

4.1.1.3 Represents IPC in relationships with international organizations

4.1.1.4 Responsible for the IPC elements of the preparedness plans and strategize the responses to public-health emergencies due to communicable diseases (e.g. pandemics)

4.1.1.5 Supervise and evaluate implementation of national technical guidelines in health care facilities

4.1.1.6 Receive and manage IPC related issues from health regions

4.1.1.7 Follow up and consult on reported outbreaks from regions and provide technical support

4.1.1.8 Establish scope and the structure of the training in the following:

4.1.1.8.1 Basic training of IPC for HCWs in all regions

4.1.1.8.2 Specialized training of infection-control professionals (technical teams)

4.1.1.8.3 Establish Educational programs e.g. (MOH-JCI IC Diploma program)

4.1.1.9 Coordinate, collect and document the available data on HAIs at the national level

4.1.1.10 Develop a system for surveillance of HAIs in all levels of health care facilities.

4.1.1.11 Develop and monitor the progress of national IPC program.

4.1.1.12 Participate in Hajj activities for preparation training and monitoring all IPC related activities.

4.1.1.13 Provide statistical analysis on the available data and benchmarking reports for region's performance in IPC programs.

4.1.1.14 Prepare an annual report of the achievements and progress on programs and projects.

4.1.2 Personnel

4.1.2.1 General Director

FOR REVIEW BY M.D & H.D. BEFOR DISTR.

4.1.2.2 Assistant General Director

4.1.2.3 Director of Planning and Development Department

4.1.2.4 Director of Follow up and Evaluation Department

4.1.2.5 Executive Manager

4.1.2.6 Multidisciplinary staff: infection control professionals (physicians and nurses) epidemiologist, microbiologist, public health specialists and consultants, total quality management specialists, medical research, biostatistics specialists, administrative, IT and secretarial staff.

4.1.3.1 Administratively: Report to the Assistant Deputy Minister for Preventive Health.

4.2. Regional Directorate of Infection Prevention & Control (IPC-RD) –

Ensures that all MOH approved guidelines are being implemented (refer to Core Components)

4.2.1 Responsibilities (include but not limited to):

4.2.1.1 Distribute MOH guidelines of IPC to the hospitals and ensure their understanding of them.
4.2.1.2 Develop an annual auditing plan to monitor the implementation of the IPC programs in health care facilities in their region.

4.2.1.3 Perform auditing of the facilities and provide recommendations for identified gaps using ICMC (refer to Core Components).

4.2.1.4 Follow up implementation towards the closure of these gaps

4.2.1.5 Supervise the progress of the programs and projects and collect their forms from the healthcare facilities in the region and send them according to GDIPC regulations and memorandums.

4.2.1.6 Manage epidemic outbreaks of health care facilities in the region, by following the guidelines established by the GDIPC (refer to Core Components).

4.2.1.7 Coordinate with the inter-related departments in the regional directorate to ensure implementation of the requirements of infection control in health facilities in that region. This will be

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achieved through regular meetings of the infection control committee at regional level (refer to Core Components).

4.2.1.8 Effectively communicate with IPC departments in health care facilities to evaluate these departments. This will be achieved:

4.2.1.8.1 Using ICMC by the IPC office (refer to Core Components).

4.2.1.8.2 Receiving quarterly auditing results using HOME tab of the ICMC automated Excel file (refer to Core Components).

4.2.1.8.3 Send Regional Hospital Scoring Tracker to GDIPC semi-annually. (Refer to Core Components).
4.2.1.9 Ensure availability of all IPC supplies and equipment required at the regional level.

4.2.2 Personnel:

4.2.2.1 Medical epidemiologist

4.2.2.2 Infection control professionals (physicians and nurses)

4.2.2.3 Public health professionals

4.2.2.4 IT

4.2.3 Reporting:

4.2.3.1 Administrative: Report to assistant director of public health in the region.

4.2.3.2 Functional: Report all the required reports (as mentioned above or in the core components) to the General Directorate of Infection Prevention and Control (GDIPC) through the Regional General Director.

4.3. Infection Prevention & Control Healthcare Facilities Afif General Hospital consists of:

4.3.1. Infection Control Committees (ICC).

4.3.2. Responsibility of Infection Control department (include but not limited to):

4.3.2.1. Ensure that all MOH approved guidelines are being implemented.

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4.3.2.2. Plan operational processes, activities and resources of infection control services and ensures that all activities and responsibilities are carried out effectively.

4.3.2.3. Responsible for the department's functions related to surveillance, analysis, and interpretation and reporting of HAIs.

4.3.2.4. Develop an annual training plan for employee education on infection control and prevention related activities.

4.3.2.5. Develop an infection control risk assessment annually to be approved by Infection Control Committee.

4.3.2.6. Develop IC action plan based on risk assessment annually to be approved by ICC.

4.3.2.7. Prepare, organize and manages the ICC meeting as ICC coordinator.

4.3.2.8. Prepare statistical reports on HAIs, compliance rates (ICMC), and other programs compliance (Needle stick injuries, outbreaks, and Hand Hygiene) for the meeting.

4.3.2.9. Review, edit and maintain transcribed ICC minutes.

4.3.2.10. Work effectively with supply department to ensure that all products and other necessary infection control resources are constantly available.

4.3.2.11. Adhere to all the protocols and policies issued by GDIPC

4.3.2.12. Responsible for communicating all the IPC related data to the IPC-RD.

4.3.2.13. Other duties as assigned.

4.3.3. Responsibility of Nursing Representatives or "Link Nurses":

4.3.3.1. To convey the recommendations of the Infection Control team to the staff of the ward and send feedback to the Infection Control department.

4.3.3.2. To ensure implementation of infection control activities in the Link Nurses' department.

4.3.3.3. To be responsible for reporting any infections in the department

4.3.4. Personnel:

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4.3.4.1. Infection Control professionals (doctors & nurses)

4.3.4.2. Environmental officer or ICP

4.3.4.3. Public health officer or ICP

4.3.4.4. Link nurse – nurses from the clinical area

4.3.5. Reporting:

4.3.5.1. Administrative: Reports to the Medical Director/Hospital Director

4.3.5.2. Functional: Report all the required reports (as mentioned above or in the core components) to the IPC-RD through the Healthcare facility director.

RELATEDPOLICY / CROSS REFERENCES:

World Health Organization (WHO)
The JCIA,
Centers for Disease Control and Prevention (CDC),
Ministry of Health (MOH).

FOR REVIEW BY M.D.&H.D. BEFOR DISTR.

APPROVAL

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Head of infection Control		7 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR S.C.# 06-R-[illegible]386	MAR 2019
	Dr. Sher Agha	Head of infection Control		7 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No.113-R-M-0046094	MAR 2019
	Mr.Khalid Bader Mutairy	TQM Director		MAR 2019
Approved by	Dr. Adel Moteb Bin Omairah	Hospital Director		2 0 MAR 2019

POLICY AND PROCEDURE HISTORY:

Policy and Procedure History:	Index &Version number	Date
Initial Policy and Procedure:	DPP-ICP-IC-001(1)	April 2018
Replaced by:	DPP-ICP-IC-001(2)	April 1,2019
Deleted:	DPP-ICP-IC-001(1	April 2018
Replaced by New Policy and Procedure:	DPP-ICP-IC-001(2)	April 1,2019

وزارة الصحة
Ministry of Health

إعطاء صلاحيات
Statement of Authority

تاريخ الأصدار:

مدير قسم مكافحة العدوى في المستشفى محمل المسؤولية ومعطى الصلاحيات لإعداد السياسات ولاتخاذ الإجراءات والإشراف على كافة النشاطات الهادفة للوقاية من العدوى والسيطرة عليها في كافة مرافق المستشفى.

Date of Issue:

The Director for the Infection Prevention and Control Program of the institution has the responsibility and authority to establish policies and procedures for the instruction of its personnel and for the overall supervision of infection prevention and control activities in its facilities.

Approvals:

المدير الطبي
Medical Director

DR. AHMED [illegible]
MEDICAL DIRECTOR
SC NO. 13-R-M-0046094

مدير المستشفى
Hospital Director

DEPARTMENTAL POLICY AND PROCEDURE (DPP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
METHODS OF SURVEILLANCE			DPP-IC-001(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	DPP-IC-001(3)	8
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL INFECTION CONTROL PRACTITIONERS, INFECTION CONTROL COMMITTEE MEMBERS AND TO ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To classify and describe the different methods of surveillance within the complex which will monitor healthcare associated infection.

1.2. To monitor the effectiveness of the infection prevention and control program.

1.3. To gather data and provide information that shall assess overall quality of care.

2.0 DEFINITION (S):

2.1. ***Surveillance*** - it is a systematic method of collecting, consolidating and analyzing data concerning the distribution and determinates of a given disease or event followed by the dissemination of that information to those who can improve the outcome.

2.2. ***Healthcare-associated Infection (HAI)*** – is an infection that develops in a patient who is cared for in any setting where healthcare is delivered and is related to receiving healthcare (i.e., was not incubating or present at the time healthcare was provided).

2.3. ***Community acquired infection*** – an infection that is already present or incubating on the time of admission to the hospital.

2.4. ***Colonization*** – the presence of microorganism in a site (skin, mucous membrane and wounds or in secretions and excretions) that are not causing adverse clinical signs and symptoms.

3.0 POLICY STATEMENT(S):

3.1. A surveillance plan shall be carried out by infection prevention and control practitioners to

identify and monitor on a consistent basis healthcare associated infection, variety of outcomes, processes and events as well as micro-organisms of epidemiological significance.

3.2. The hospital administration should provide support for the surveillance activities of the Infection Prevention and Control Department.

3.3. The surveillance plan shall be active, prospective/retrospective, patient based, incidence, priority directed and risk-adjusted.

3.4. Centers for Disease Control (CDC) criteria for healthcare associated infection shall be utilized in gathering information for the surveillance process.

4.0 EQUIPMENTS /MATERIALS /FORMS:

4.1. Writing Equipments

4.2. Surveillance forms

4.3. Computer with internet connection

4.4. Printer

5.0 ROLES AND RESPONSIBILITIES:

5.1. N/A

6.0 PROCEDURE:

6.1. Surveillance Indicators shall include the following:

6.1.1. Patient Safety Component as well as the IHI Bundles. The NHSN Patient Safety Component includes four modules, and each module has two or more surveillance elements. IHI Bundles include four types of bundles to reduce HAI occurrence.

6.1.2. Patient Safety Modules

6.1.2.1. Device-Associated Module:

a. Central Line-Associated Bloodstream Infection (CLABSI) Event
b. Ventilator-Associated Pneumonia (VAP) Event
c. Catheter-Associated Urinary Tract Infection (CAUTI) Event

6.1.2.2. Medication –Associated Module:

6.1.2.3. Procedure-Associated Module:

a. Surgical Site Infection (SSI) Event

b. Post Procedure Pneumonia (PPP) Event

6.1.2.4. Multidrug-Resistant Organisms Module:

a. Pseudomonas aeruginosa

b. Klebseilla Spp.

c. Acinetobacter Spp.

d. Methicillin – resistant Staphylococcus Aureus (MRSA)

e. Vancomycin- resistant Enterococcus (VRE)

6.1.2.5. Bundles:

a. Central Line Bundles

b. Ventilator Bundles

c. Catheter Associated Urinary Tract Infection Prevention Bundles

d. Surgical Site Bundles

6.2. Surveillance Location:

6.2.1. Location of Surveillance: The patient care area to which a patient is assigned while receiving care in the healthcare facility. The location of surveillance may be inpatient, outpatient, or both.

6.2.1.1. BSI, UTI, VAP, AUR-pharmacy, and PPP are surveyed only in inpatients.

6.2.1.2. DE is surveyed only in outpatients.

6.2.1.3. SSI and MDRO may be surveyed in both inpatients and outpatients.

6.2.1.4. AUR-microbiology should be surveyed in both inpatients and outpatients.

6.2.1.5. There is no UTI surveillance for the neonatal ICU.

6.2.1.6. Central line, ventilator, and urinary catheter bundles are surveyed in inpatients.

6.2.1.7. The surgical bundle is surveyed in inpatients and/or outpatients.

6.3. Surveillance Location:

6.3.1. Location of Surveillance: The patient care area to which a patient is assigned while receiving care in the healthcare facility. The location of surveillance may be inpatient, outpatient, or both.

6.3.1.1. BSI, UTI, VAP, AUR-pharmacy, and PPP are surveyed only in inpatients.

6.3.1.2. DE is surveyed only in outpatients.

6.3.1.3. SSI and MDRO may be surveyed in both inpatients and outpatients.

6.3.1.4. AUR-microbiology should be surveyed in both inpatients and outpatients.

6.3.1.5. There is no UTI surveillance for the neonatal ICU.

6.3.1.6. Central line, ventilator, and urinary catheter bundles are surveyed in inpatients.

6.3.1.7. The surgical bundle is surveyed in inpatients and/or outpatients.

6.3.2. **Inpatient locations:** Locations serving patients whose date of admission to the healthcare facility and the date of discharge are different calendar days.

6.3.2.1. **ICU:** This unit is a nursing care area that provides intense observation, diagnosis, and therapeutic procedures for adults (Adult ICU), children (Pediatric ICU, PICU), or neonates (Neonatal ICU, NICU) who are critically ill. The critical care could be surgical, medical, trauma, respiratory, neurological, etc. An ICU excludes nursing areas that provide step-down, intermediate care or telemetry only. Specialty care areas are also excluded. The type of ICU is determined by the type of patients cared for in that unit. That is, if 80% of patients are of a certain type (e.g., patients with trauma), then that particular ICU is designated as that type of unit (in this case, a trauma ICU). When a unit houses roughly equal populations of medical and surgical patients, it is called a medical/surgical unit.

6.3.2.2. **Specialty care area (SCA):** This area is a hospital location that includes one of the following types of specialty care areas: bone marrow transplant, solid organ transplant, inpatient acute dialysis, hematology/oncology, or long term acute care.

6.3.2.3. **Other inpatient:** This section includes any inpatient locations that do not have an ICU or SCA, e.g., inpatient medical, surgical, or other wards, step-down units, or operating rooms (ORs). The OR may include an operating room, c-section room, interventional radiology room, a cardiac catheterization lab, or a post-anesthesia care unit.

6.3.2.4. **Outpatient locations:** These locations serve patients whose date of admission to the healthcare facility and the date of discharge are the same calendar day. These may include any outpatient clinic, the Outpatient Emergency Department, or same day surgery and its 24-hour observation area.

6.4. **Surveillance Methodology:**

6.4.1. The Patient Safety surveillance modules require active, patient-based, prospective, priority-directed surveillance (as defined below) of device/medication/procedure-associated infection events and their corresponding denominator data by a trained infection control professional (ICP). This means that the ICP shall seek out infections during a patient's stay by screening a variety of data sources.

6.4.1.1. Retrospective chart reviews should be used only when patients are discharged before all of the information could be gathered.

6.4.1.2. Other HCWs (other than ICPs) may be trained to screen data sources for these infections, but the ICP must make the final determination.

6.4.1.3. To minimize the ICP's data collection burden, others may be trained to collect the denominator data (separate forms for device/medication-associated infections).

6.4.2. Important concepts:

6.4.2.1. Active and passive surveillance:

a. Active surveillance:

i. Trained personnel, mainly ICPs, are vigorously look for HAIs

ii. Information is accumulated using a variety of data sources within and beyond the nursing ward

iii. Passive surveillance:

- Persons who do not have a primary surveillance role, such as ward nurses or respiratory therapists, identify and report HAIs

b. Patient-based and laboratory-based surveillance:

i. Patient-based surveillance

- Count HAIs, assess risk factors, and monitor patient care procedures and practices for adherence to infection control principles.
- Requires ward rounds and discussion with caregivers.

ii. Laboratory-based surveillance:

- Detection is based solely on the findings of laboratory studies of clinical specimens.

c. Prospective and retrospective surveillance:

i. Prospective surveillance

- Monitor patients during their hospitalization
- For SSIs, also monitor during the post-discharge period

ii. Retrospective surveillance:

- Identify infections via chart reviews after patient discharge.

d. Priority-directed and comprehensive surveillance:

i. Priority-directed surveillance (also called targeted or focused surveillance)

- Objectives for surveillance are defined
- The focus is on specific events, processes, organisms, and/or patient populations

e. Comprehensive surveillance

i. Continuous monitoring of all patients for all events and/or processes

ii. Highly personnel resource intensive if done manually.

6.5. Surveillance Data Collection: The data collected may be numerator or denominator data.

6.5.1. Numerator data to collect:

6.5.1.1. Demographics – name, date of birth, gender, hospital identification number, admission date

6.5.1.2. Infection – onset date, site of infection, patient care location of HAI onset

6.5.1.3. Risk factors – devices, procedures, and other factors associated with HAI

6.5.1.4. Laboratory – pathogens, antibiogram, serology, and pathology

6.5.1.5. Radiology/imaging – X-ray, CT scan, MRI, etc.

6.5.2. Sources of numerator data:

6.5.2.1. Admission/discharge/transfer records and microbiology laboratory records

6.5.2.2. Visits to patient wards for observation and discussion with caregivers

6.5.2.3. Patient charts (paper or computerized) for case confirmation.

a. Laboratory and radiology/imaging results

b. Nursing and physician's notes and consults

c. Admission diagnosis

d. History and physical examination findings

e. Records of diagnostic and surgical interventions

f. Temperature chart

g. Information on administration of antibiotics

6.5.2.4. For post-discharge-detected SSI, sources include records from surgery clinics, physicians' offices, and emergency departments.

6.5.3. Collection of Numerator Data:

6.5.3.1. Screens admission/discharge/transfer records for patients who were admitted with infection and those whose diagnoses put them at risk of acquiring an HAI

6.5.3.2. Reviews laboratory reports to look for patients with possible infections (e.g., positive microbiology cultures, positive pathology findings) and discusses with laboratory personnel to identify both patients who may be infected and clusters of infections, especially in areas not targeted for routine HAI surveillance

7.0 RELATED POLICY / CROSS REFERENCES:

7.1. GCC 3rd edition of surveillance manual 2018 and HESN training program.

8.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR	07 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No: 13-R-M-0046094	12 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Mr. Khalid B. Al Mutairi QM Director	17 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		24 MAR 2019

9.0 POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC26-1	April 1, 2012
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Deleted	DPP-IC-001(3)	April 1, 2016
Replaced by New Policy and Procedure	DPP-IC-001(4)	April 1, 2019

INTERDEPARTMENTAL POLICY AND PROCEDURE (IDP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
CATHETER ACQUIRED URINARY TRACT INFECTION (CAUTI)			IDP-IC-001(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	IDP-IC-001(3)	12
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS INVOLVED IN THE MANAGEMENT AND CARE OF URINARY CATHETER	

1.0 PURPOSE:

To prevent patients from acquiring catheter-associated urinary tract infections (CAUTI).

2.0 INTRODUCTION TO CAUTI: THE SCOPE OF THE PROBLEM

2.1 One of the most common sites of healthcare-associated infections (HAIs).
2.2 More than 15% of infections reported by acute care hospitals.
2.3 Many UTIs are caused by instrumentation of the urinary tract.
2.4 CAUTIs can lead to prostatitis, epididymitis, and orchitis in males, and cystitis, pyelonephritis, gram-negative bacteremia, endocarditis, vertebral osteomyelitis, septic arthritis, endophthalmitis, and meningitis in all patients.
2.5 Complications associated with CAUTI cause discomfort to the patient, prolonged hospital stay, and increased cost and mortality.

More than 13,000 deaths are associated with UTIs every year

3.0 KEY TERMS

3.1 Infection Window Period
3.2 Date of Event
3.3 Present on Admission (POA)
3.4 HAI (Healthcare-associated Infection)
3.5 RIT (Repeat Infection Timeframe)
3.6 CAUTI
3.7 Indwelling catheter
3.8 Location of Attribution
3.9 Transfer Rule
3.10 Symptomatic UTI (SUTI)
3.11 Asymptomatic Bacteremic UTI (ABUTI)

3.1 INFECTION WINDOW PERIOD DEFINITION

7-day period during which all site-specific infection criteria must be met.

Includes the day the first positive diagnostic test* included as part of site-specific infection criterion was obtained, the 3 calendar days before and the 3 calendar days after.

***Diagnostic test includes: laboratory specimen collection date, imaging test, procedure or exam, physician diagnosis, and initiation of treatment.**

3.2 DATE OF EVENT

The first element used to meet a CDC/NHSN site-specific infection criterion occurs for the first time within the seven-day Infection Window Period.

For a UTI, the date of event is the date when the first element used to meet the UTI infection criterion occurred for the first time in the Infection Window Period.

3.3 POA:

Infection is considered POA if the date of event of the CDC/NHSN site-specific infection is the day of admission to an inpatient location, the 2 days before or the day after.

Infections that are POA as defined above, are NOT HAIs and are not reported to HESN.

3.4 HAI

If the date of event of the site-specific infection criterion occurs on or after the 3rd calendar day of admission to the facility, with the day of admission to an inpatient location being calendar day 1.

3.5 REPEATED INFECTION TIME FRAME:

i. 14-day timeframe during which no new infections of the same type will be reported. The date of event will be Day 1 of the 14-day Repeat Infection Timeframe.

ii. Additional pathogens recovered from the same type of infection during the RIT are added to the event.

iii. NOTE: For UTIs, the RIT will apply at the major site of infection. For example, a patient will have no more than 1 UTI (e.g., SUTI, ABUTI) during the RIT.

3.6 URINARY TRACT INFECTIONS:

A urinary tract infection (UTI) is defined using

3.6.1 Symptomatic Urinary Tract Infection (SUTI) criteria,
3.6.2 Asymptomatic Bacteremic UTI (ABUTI) criterion,
3.6.3 Urinary System Infection (USI) criteria.

A UTI where an indwelling urinary catheter was in place for >2 calendar days on the date of the event, with day of device placement being Day 1

AND

An indwelling urinary catheter was in place on the date of event or the day before. If an indwelling urinary catheter was in place for >2 calendar days and then removed, the date of event for the UTI must be the day of discontinuation or the next day for the UTI to be catheter-associated.

SUTI 1b and USI, as defined in the HAI Definitions cannot be catheter-associated.

3.7 URINARY CATHETER:

i. Developed in the 1920s by Dr. Frederick Foley
ii. The urinary catheter was originally an open system with the urethral tube draining into an open container.
iii. In the 1950s, a closed system was developed in which the urine flowed through a catheter into a closed bag.

3.7.1 INDWELLING CATHETER/ FOLEY'S CATHETER:

A drainage tube that is inserted into the urinary bladder through the urethra, is left in place, and is connected to a drainage bag

How are catheter days counted if a catheter has been replaced

i. If, after the indwelling urinary catheter is removed, the patient is without an indwelling urinary catheter for a least 1 full calendar day (NOT to be read as 24 hours), then the urinary catheter day count will start anew.
ii. However, if a new indwelling urinary catheter is inserted before a full calendar day has passed without an indwelling urinary catheter being present, the urinary catheter day count will continue.

3.7 LOCATION OF ATTRIBUTION:

3.7.1.1 The inpatient location where the patient was assigned on the date of the UTI event.
3.7.1.2 What if the patient was recently transferred from another location?

3.8 TRANSFER RULE:

3.8.1 If the date of event for a CAUTI is on the date of transfer or discharge, or the next day, the infection is attributed to the transferring/discharging location. This is called the **Transfer Rule.**
3.8.2 Receiving facilities should share information about such HAIs with the transferring location or facility to enable reporting.
3.8.3 In instances where a patient has been transferred to more than one location on the date of a UTI, or the day before, attribute the UTI to the first

location in which the patient was housed the day before the UTI's date of event.

3.9.0 DEFINING THE URINARY TRACT INFECTION CRITERIA

3.10.1.1 Is it a SUTI?
3.10.1.2 Is it a CAUTI or Non-CAUTI?
3.10.1.3 Defining the SUTI Criteria

3.10.0 UTI CRITERIA:

3.10.1.1 SUIT 1a: Catheter associated urinary tract infection (CAUTI)
3.10.1.2 SUIT 1b: Non- Catheter associated urinary tract infection (Non-CAUTI)
3.10.1.3 SUIT 2: CAUTI or Non- CAUTI in pts. 1 year of age or less
3.10.1.4 ABUTI: Asymptomatic Bacteremic Urinary Tract Infection (with or without catheter but no signs and symptoms)
3.10.1.5 USI: Non catheter associated urinary system infection

3.10.1.1. SUTI CRITERION 1A (CATHETER-ASSOCIATED UTI)

1. Patient had an indwelling urinary catheter that had been in place for >2 calendar days on the date of event (day of device placement = Day 1)
AND was either:

- Still present on the date of event, OR
- Removed the day before the date of event

AND

2. Patient has at least one of the following signs or symptoms:

- Fever (>38°C)
- Suprapubic tenderness*
- Costovertebral angle pain or tenderness*
- Urinary urgency*
- Urinary frequency*
- Dysuria*

Patient must meet 1, 2, and 3 below:

3. Patient has a positive urine culture with no more than 2 species of organisms at least one of which is a bacterium of >105 colony-forming units (CFU/ml). All elements of the UTI criteria must occur during the Infection Window Period.

3.10.1.2. SUTI CRITERION 1B (NON-CATHETER-ASSOCIATED UTI):

1. Patient has/had an indwelling urinary catheter, but it has/had not been in place > 2 calendar days on the date of event OR the patient did not have a urinary catheter in place on the date of event nor the day before the date of event

And

2. Patient has at least 1 of the following signs or symptoms:

- Fever (>38.0°C) in a patient that is <65 years of age
- Urgency
- Frequency
- Dysuria
- Suprapubic tenderness
- Costovertebral angle pain or tenderness

3. A urine culture with no more than 2 species of organisms, at least one of which is a bacterium of $>10^5$ CFU/ml. All elements of the SUTI criteria must occur during the Infection Window Period.

3.10.1.3. SUIT 2: CAUTI OR NON- CAUTI IN PTS. 1 YEAR OF AGE OR LESS

Patient <1 year of age with or without an indwelling urinary catheter, has at least 1 of the following signs or symptoms: fever (>38.0°C), hypothermia (<36.0°C); apnea; bradycardia; lethargy; vomiting; suprapubic tenderness

And

A positive urine culture with no more than 2 species of organisms, at least one of which is a bacterium of $>10^5$ CFU/ml. All elements of the SUTI criterion must occur during the Infection Window Period.

3.10.1.4. ASYMPTOMATIC BACTEREMIC UTI (ABUTI)

Patient must meet 1, 2, and 3 below:

1. Patient with or without an indwelling urinary catheter has no signs or symptoms of SUTI 1 or 2 according to age

And

2. Patient has a positive urine culture with no more than 2 species of organisms, at least one of which is a bacterium of $>10^5$ CFU/ml.

And

3. Patient has a positive blood culture matching at least 1 bacterium present at $>10^5$ CFU/ml in the urine culture, or meets LCBI criterion 2 (with hypotension or chills) and matching common commensal(s) in the urine. All elements of the ABUTI criterion must occur during the Infection Window Period.
The indwelling urinary catheter was in place >2 calendar days, with the day of device placement being Day 1, and catheter was in place on the date of event or the day before.

** "Mixed flora" represents at least 2 species of organisms.
Therefore, an additional organism recovered from the same culture would represent >2 species of microorganisms. Such a specimen cannot be used to meet the UTI criteria.

3.10.1.5 URINARY SYSTEM INFECTION CRITERIA (USI):

- ❖ Includes kidney, ureter, bladder, urethra, or tissue surrounding the retroperitoneal or perinephric space.
- ❖ Other infections of the urinary tract must meet at least 1 of the following criteria:(1, 2, 3, or 4)

1. Patient has microorganisms isolated from culture of fluid (excluding urine) or tissue from affected site.

2. Patient has an abscess or other evidence of infection on gross anatomical exam, during invasive procedure, or on histopathologic exam.

3. Patient has at least 1 of the following signs or symptoms

- fever (>38.0°C)
- localized pain or tenderness at the involved site

AND

4. At least 1 of the following:

- purulent drainage from affected site
- organisms cultured from blood and imaging test evidence of infection (e.g. ultrasound, CT scan, magnetic resonance imaging [MRI], or radiolabel scan [gallium technetium]), with no other recognized cause

All elements of the UTI criterion must occur during the Infection Window Period.

3.11. REMINDER FOR APPROPRIATE URINARY CATHETER USE

1. Avoid urinary catheter use if not indicated
2. Try to discontinue the catheter promptly when not needed
3. The longer the catheter is present, the higher the risk of infection!
4. The urinary drainage system should always remain a closed system

3.12. CALCULATING THE CAUTI RATE:

The CAUTI rate is an incidence density rate and is calculated by using the following formula:

CAUTI rate = # <u>CAUTIs identified</u>×1000

Catheter days

3.13 DEVICE UTILIZATION (DU) RATIO

The DU Ratio measures the proportion of patient days in which indwelling urinary catheters were used. It is a measure of the risk associated with the location.

$$\text{Indwelling Catheter DU Ratio} = \frac{\text{\# Indwelling catheter days}}{\text{\# Patient days}}$$

3.14. USING CAUTI DATA:

Nursing administrators and patient caregivers

- Appropriate medical staff (e.g., urologists, internists, intensivists)
- Quality and Performance Improvement leaders
- Infection Control Committee
- Hospital leadership

3.15. ONGOING SURVEILLANCE

Ongoing surveillance should be conducted

- ❖ To determine if a decrease in rates has been sustained over time
- ❖ To evaluate the effectiveness of infection prevention interventions
- ❖ To provide appropriate feedback to caregivers and other stakeholders
- ❖ To initiate new infection interventions that may be indicated based on the data

POLICY STATEMENT(S):

3.1. Appropriate infection prevention and control measures shall observe by all personnel Responsible for urinary catheter insertion and maintenance. Several points shall be considered.

3.1.1. Appropriate catheter shall be used and inserted only under appropriate indications and shall be kept in place only as long as needed.

3.1.2. Urinary catheter usage and duration of use shall be minimizing in all patients, particularly those at higher risk for Catheter Associated Urinary Tract Infection (CAUTI).

3.1.3. Insertion of indwelling urinary catheter for surgical patients shall only be done as necessary. If inserted, it shall be removed as soon as possible preferably within 24 hours post-operatively.

3.1.4. Indwelling urinary catheter insertion shall be done under aseptic technique and shall be performed with extreme caution to prevent bladder injury and infection.

3.1.5. Healthcare workers who take care of catheter shall be given periodic in-service training regarding techniques and procedures for urinary catheter insertion, maintenance and removal.

3.2. A system for documentation in the patient's file shall be in place and shall include the following information's:

3.2.1. Indication for catheter insertion.

3.2.2. Date and time of Insertion.

3.2.3. Name of person who inserted.

3.2.4. Date and time of removal

3.3. Surveillance for catheter associated urinary tract infection shall be performed in high risk areas (ICU, and NICU) and in the medical wards

4 EQUIPMENTS /MATERIALS /FORMS:

4.1. Personal Protective Equipment's - gown / mask / sterile gloves / non sterile gloves.

4.2. Foley catheter / normal saline / syringes / xylocaine gel 2% / urine collection bag Povidone-iodine / plaster /cotton balls.

5 ROLES AND RESPONSIBILITIES:

5.1. Infection Preventionist

5.1.1. Monitor adherence to infection control measures regarding care of Indwelling catheters.

5.1.2. Reminds healthcare workers of the unit regarding the number of days the catheter is in place.

5.2. Physician: Reviews catheter use if still needed or not.

5.3. Nurses: Reminds treating doctor's for continuance of indwelling catheter use.

6 PROCEDURE:

6.1. Catheter insertion:

6.1.1. Check doctor's order for safe legal action.

6.1.2. Prepare equipment's and choose the appropriate size.

6.1.3. Perform hand hygiene and don sterile gloves.

6.1.4. Wash Perineal area with soap and water removed gloves and performs hand hygiene.

6.1.5. Don sterile gloves open all sterile equipment and drape the patient's genitalia.

6.1.6. Cleanse the peri-urethral with appropriate antiseptic or sterile solution (povidone –Iodine).

6.1.7. Lubricate the catheter and gently introduce into the urethral meatus.

6.1.8. Connect the drainage bag, secure with plaster to the thigh and keep hanged below the level of the bladder.

6.1.9. Dry the area with clean towel.

6.1.10. Remove gloves, dispose in appropriate container.

6.1.11. Perform hand hygiene

6.2. Catheter care and maintenance

6.2.1. Inspect the catheter for cracks and leaks before insertion.

6.2.2. Keep the catheter secured to the thigh to avoid irritation to the meatal orifice.

6.2.3. Keep urine flow unobstructed:

6.2.3.1. Keep the catheter and drainage tube free from kinking.

6.2.3.2. Keep the bag below the bladder at all times.

6.2.3.3. Empty collecting bag regularly using a clean container for each patient in a manner to avoid splash and contact of the drainage spigot to the collecting container.

6.2.4. Observe standard precautions during any manipulation of the catheter or collecting system.

6.2.5. Change of indwelling catheters or drainage bags at routine, fixed intervals is not recommended. Changed catheters and drainage bags based on clinical infection, obstruction or when the closed system is compromised.

6.2.6. Check catheters frequently for blood clots, mucous secretion sediments turbidity and obstruction.

6.2.7. Do not use systemic antimicrobials routinely unless clinical indications exist (e.g., in patients with bacteriuria upon catheter removal and post urologic surgery.

6.2.8. Do not clean the periurethral area with antiseptics to prevent catheter associated Urinary tract infection while catheter is in place. Routine hygiene (e.g., cleaning of the meatal surface during daily bathing) is appropriate.

6.2.9. Unless obstruction is anticipated, (e.g., as might occur with bleeding after prostate or bladder surgery) bladder irrigation is not recommended.

6.2.10. If obstruction is anticipated, closed continuous irrigation is suggested. Change the catheter if obstruction is likely due to the catheter material.

6.3. Catheter Material

Silicon is preferable to other catheter materials to reduce the risk of encrustation in long term catheterized patients who have frequent obstruction.

6.4. Specimen Collection

Obtain urine sample aseptically. If a small volume of fresh urine is needed for examination (i.e., urinalysis of culture), aspirate the urine from the needleless sampling port with a sterile syringe/cannula adapter after cleansing the port with a disinfectant.

6.5. Catheter Removal

6.6. Remove catheter upon doctor's order.

6.6.1. Remove catheter when bladder decompression is no longer necessary, when Patient can resume voiding, if any sign and symptoms of infections or when catheter is obstructed.

6.6.2. Post removal, assess for dribbling, urgency, dysuria, bladder spasm and ever.

6.6.3. Check for post catheter complications:

6.6.3.1. Bladder infection

6.6.3.2. Acute renal failure

6.6.3.3. Hematuria

6.6.3.4. Flank pain

6.6.3.5. Foul smell of urine

7.0 INSERTION PROCEDURE COMPLIANCE

1. Avoid unnecessary urinary catheters

2. Insert using aseptic technique

2.1. Hand hygiene before insertion of UC

2.2. Use sterile equipment (Gloves, a drape, and sponges,
Sterile or antiseptic solution for cleaning the urethral meatus and single-use packet of sterile lubricant for insertion).

3. Use of small catheter as possible

7.1 BUNDLE DAILY REVIEW:

Hand Hygiene

Maintain catheters based on recommended guidelines

3.1 maintain a sterile, continuously closed drainage system

3.2 keep catheter properly secured to prevent movement and urethral traction

3.3 keep collection bag below the level of the bladder at all times.

3.4 maintain unobstructed urine flow.

3.5 empty collection bag regularly, using a separate collection container for each patient and a void allowing the draining spigot to touch the collection container.

4.Review urinary catheter necessity daily and remove promptly.

8.0 RELATED POLICY / CROSS REFERENCES:

3rd edition GCC surveillance manual 2018.

Moh and HESN guidelines and training

CDC CAUTI guidelines 2009

APIC text book of infection prevention and control 2017 edition.

9.0 ATTACHMENTS:

CAUTI surveillance forms and bundles

10 .0APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA داشير آغا رئيس مكافحة العدوى	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR S.C.# 08-RN-2986	07 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA داشير آغا رئيس مكافحة العدوى	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No: 13-R-M-0046094	12 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutari	Quality Director	Mr. Khalid B AlMutairi QM Director	17 MAR 20..
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		24 MAR 2019

11.0 POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC22-1	April 1, 2012
Replaced by	IDP-IC-001(2)	April 1, 2014
Deleted	IDP-IC-001(3)	April 1, 2016
Replaced by New Policy and Procedure	IDP-IC-001(4)	April 1, 2019

Afif General Hospital
Infection Prevention & Control Department
Catheter-Associated Urinary Tract Infection (CAUTI) Surveillance Form

وزارة الصحة
Ministry of Health

SECTION I: PATIENT AND HOSPITAL INFORMATION

Patient ID: | | | | | | | | | | |

Date of Birth: | | | | | | | | | (D D M M Y Y Y Y)

Surveillance Plan Date: | | | | | (M M Y Y)

Gender: ☐ Male ☐ Female

Facility ID: | | | | | | | |

Location:
- ☐ Intensive Care Unit (ICU): _____
- ☐ Specialty Care Area (SCA): _____
- ☐ Other: _____

SECTION II: ADMISSION AND CATHETER INFORMATION

Hospital Stay:

Admission Date: | | | | | | | (D D M M Y Y)

Discharge Date: | | | | | | | (D D M M Y Y)

ICU Stay:

Admission Date: | | | | | | | (D D M M Y Y)

Discharge Date: | | | | | | | (D D M M Y Y)

Location of Urinary Catheter Insertion: _____

Insertion Date: | | | | | | | (D D M M Y Y)

Removal Date: | | | | | | | (D D M M Y Y)

SECTION III: UTI EVENT INFORMATION

UTI Diagnosed:
- ☐ Yes, complete below
- ☐ No

UTI Diagnosis: (See the back)
- ☐ Symptomatic UTI (SUTI)
  - ☐ Criterion-1A
  - ☐ Criterion-2
- ☐ Asymptomatic Bacteremic UTI (ABUTI)

Note: These are not CAUTI
- ☐ SUTI Criterion-1B
- ☐ SUTI Criterion-2B
- ☐ Other UTI (OUTI)

UTI Date: | | | | | | | (D D M M Y Y)

Patient had indwelling urinary catheter in place at the date of event or the day before for >2 calendar days
- ☐ Yes
  - ☐ In place at the date of the event
  - ☐ Removed at the date of the event or the day before
- ☐ No

Note: The answer has to be yes to be considered CAUTI

UTI Diagnosed after a Procedure:
- ☐ Yes, complete next 2 question
- ☐ No

Procedure Name:

Procedure Date: | | | | | | | (D D M M Y Y)

Development of Secondary BSI:
- ☐ Yes
- ☐ No

Note: The answer has to be yes in all ABUTI

Hospitalization Death:
- ☐ Yes, complete next 2 questions
- ☐ No

Death Date: | | | | | | | (D D M M Y Y)

UTI Contributed to Death:
- ☐ Yes
- ☐ No

SECTION IV: LABORATORY RECORD

Time of Specimen Collection:
_____:_____ AM / PM

Organism Identified:
- ☐ Yes, complete the back
- ☐ No

COMMENTS:

Date Data Collected	D	D	M	M	Y	Y
Collector ID						
Date Data Entered	D	D	M	M	Y	Y
Data Entry ID						

Data Entry Stamp

SECTION V: LABORATORY RECORD

Name of Gram-Positive or Negative Organism(s)	Date of Record DD-MM-YY	Antimicrobial Sensitivity																										
		AMIK	AMP	AZTREON	CEFAZ	CFEP	CEFTAZ	CEFTOX	CEFTRI	CEFUR	CIP	CLINDA	ERYTH	GEN/TOB	IMI	LEVO	LNZ	MERO	MET	MUP	NIT	OXA	PEN	PIP	RIF	SXT/TMZ	TAZ	VANC	OTHERS

Name of Other Organisms (e.g., Candida spp.)	**Date of Record** DD-MM-YY	**Antimicrobial Sensitivity (type antimicrobial names)**					
		1-.....	2-.....	3-.....	4-.....	5.....	6-.....

Result Codes: **S** = Susceptible **I** = Intermediate **R** = Resistant **N** = Not tested

Drug Codes:

AMIK = amikacin
AMP = ampicillin
AZTREON = aztreonam
CEFAZ = cefazolin
CFEP = cefepime
CEFTAZ = ceftazidime
CEFTOX= cefotaxime
CEFTRI = ceftriaxone
CEFUR = cefuroxime
CIP = ciprofloxacin
CLINDA = clindamycin
ERYTH = erythromycin
GEN/TOB = gentamicin/tobramycin
IMI = imipenem
LEVO = levofloxacin
LNZ = linezolid
MERO = meropenem
MET = metronidazole
MUP = mupriocin
NIT = nitrofurantoin
OXA = oxacillin
PEN = penicillin
PIP = piperacillin
RIF = rifampicin
SXT/TMZ =sulfamethoxazole/trimethoprim
TAZ = piperacillin-tazobactam (tazocin)
VANC = vancomycin

Catheter-associated UTI (CAUTI): UTI in a patient with an indwelling urinary catheter provided that all of the following hold on

- The catheter has been for >2 calendar days and was in place at the date of event or the day before
- Urine culture with no more than two species of organisms identified, at least one of which is a bacterium of ≥105 CFU
- Signs & Symptoms:

Criterion 1A:
Patient has at least one of the following signs or symptoms:

- fever (>38.0°C)
- suprapubic tenderness*
- costovertebral angle pain or tenderness*
- urinary urgency ≠
- urinary frequency ≠
- dysuria ≠

* With no other recognized cause

≠These symptoms cannot be used when catheter is in place

Criterion 2:

- Fever (>38.0°C)
- hypothermia (<36.0°C)
- apnea*
- bradycardia*
- lethargy*
- vomiting*
- suprapubic tenderness*

* With no other recognized cause

Asymptomatic Bacteremic UTI (ABUTI):
Patient has no signs or symptoms of SUTI 1A or 2 according to age:

- Patient has an organism* identified from blood specimen (using culture or non-culture methods) with at least one matching bacterium to the bacterium identified in the urine specimen.

* Bacterium only including commensals but cannot be candida or fungi alone

Afif General Hospital
Infection Prevention & Control Department
Urinary Catheter Bundle Form

وزارة الصحة
Ministry of Health

SECTION I: PATIENT AND HOSPITAL INFORMATION

Patient ID: | | | | | | | | | | |

Date of Birth: | | | | | | | | | (D D M M Y Y Y Y)

Surveillance Plan Date: | | | | | (M M Y Y)

Gender: ☐ Male ☐ Female

Facility ID: | | | | | | | |

Location:

☐ Intensive Care Unit (ICU): _____

☐ Specialty Care Area (SCA): _____

☐ Other (specify): _____

SECTION II: BUNDLE VARIABLES

	DD/MM	DD/MM	DD/MM	DD/MM	DD/MM	DD/MM	DD/MM	DD/MM	DD/MM	DD/MM
1. Avoid Unnecessary Urinary Catheters	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A
2. Insert Using Aseptic Technique	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A
3. Maintain Catheters Based on Recommended Guidelines	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A
4. Review Catheter Necessity Daily and Remove Promptly	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A
Overall Compliance: (compliant for all the above 4	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

COMMENTS:

Date Data Collected	D	D	M	M	Y	Y
Collector ID						
Date Data Entered	D	D	M	M	Y	Y
Data Entry ID						

Data Entry Stamp

Afif General Hospital
Infection Prevention & Control Department
Urinary Catheter Insertion Procedure Form

وزارة الصحة
Ministry of Health

SECTION I: PATIENT AND HOSPITAL INFORMATION

Patient ID: | | | | | | | | | | |

Facility ID: | | | | | | | |

Date of Birth: | | | | | | | | | (D D M M Y Y Y Y)

Gender: ☐ Male ☐ Female

Date of Insertion: | | | | | | | | | (D D M M Y Y Y Y)

Urinary Catheter Inserter:_____	**Yes**	**No**	**If not Compliant, give Reason and Action Taken:**
Discussed the Necessity of Catheter Insertion: ☐ Perioperative Use ☐ Urine Output Monitoring ☐ Pressure Ulcer Healing ☐ Urine Obstruction, Retention Management ☐ Patient Request or Comfort in End of Life Care ☐ Other, specify : _____			
Maximal Barrier Precautions			
Inserter: Mask			
Sterile Gloves			
Patient: Sterile Drape			
Underpads			
Correct Skin Antisepsis Used: Cleaned urethral meatus with sterile antiseptic solution			
Catheter Related Details Catheter Size: _____ Catheter Type: _____ **Single-use Lubricant Jelly was applied on the tip of the Catheter:**			
Aseptic Technique Maintained Throughout Procedure:			
Continuously Closed System Maintained:			
Safe Disposal after Procedure:			
Daily Catheter Necessity Review (done daily during rounds)			

Daily Review Includes:

- *Catheter properly secured*
- *Collection bag below the level Of the bladder*
- *Unobstructed urine flow maintained*
- *Regular emptying of the Collection bag*

D1: ___/___			
D2: ___/___			
D3: ___/___			
D4: ___/___			
D5: ___/___			
D6: ___/___			
D7: ___/___			
D8: ___/___			
D9: ___/___			
D10: ___/___			
D11: ___/___			
D12: ___/___			
D13: ___/___			
D14: ___/___			
D15: ___/___			
D16: ___/___			
D17: ___/___			
D18: ___/___			
D19: ___/___			
D20: ___/___			
D21: ___/___			

وزارة الصحة
Ministry of Health

AFIF GENERAL HOSPITAL
INFECTION PREVENTION & CONTROL DEPARTMENT

Catheter-associated UTI (CAUTI): UTI in a patient with an indwelling urinary catheter provided that all of the following hold on:

- **The catheter has been for >2 calendar days and was in place at the date of event or the day before**
- **Urine culture with no more than two species of organisms identified, at least one of which is a bacterium of ≥10^5 CFU**
- **Signs & Symptoms:**

CAUTI Surveillance Form

Pt File No: _____

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Criterion 1A: Patient has at least **one** of the following signs or symptoms:	fever (>38.0°C)																															
	suprapubic tenderness*																															
	costovertebral angle pain or tenderness*																															
	urinary urgency																															
	Urinary frequency#																															
	dysuria ≠																															
Criterion 2: Patient ≤1 year of age and has at least **one** of the following signs or symptoms:	fever (>38.0°C)																															
	hypothermia (<36.0°C)																															
	Apnea*																															
	bradycardia*																															
	lethargy*																															
	Vomiting*																															
	suprapubic tenderness*																															
Asymptomatic Bacteremia UTI (ABUTI): Patient has **no signs or symptoms** of SUTI 1A or 2 according to age:	Patient has an organism* identified from blood specimen with at least one matching bacterium to the bacterium identified in the urine specimen.																															

* With no other recognized cause

≠These symptoms cannot be used when catheter is in place

* Bacterium only including commensals but cannot be candida or fungi alone

INTERDEPARTMENTAL POLICY AND PROCEDURE (IDP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
CARE OF RESPIRATORY EQUIPMENT			IDP-IC-002(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	IDP-IC-002(3)	9
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL INTENSIVE CARE UNIT STAFF AND PHYSICAL THERAPIST AS WELL AS OTHER HEALTHCARE WORKERS INVOLVED IN THE CARE AND MANAGEMENT OF PATIENTS WITH RESPIRATORY ILLNESS AT AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

The respiratory care service provides diagnostic and therapeutic procedures to monitor and support respiratory function. Respiratory care service activities may include cardiopulmonary diagnostics, emergency resuscitation, the administration of medical gases and aerosolized medications, bronchial hygiene therapies, airway management procedures, lung expansion therapies, mechanical ventilation, and blood gas sampling and analysis. Each of these procedures is a potential source of infection for the patient or the practitioner. Understanding of these components and potential avenues for introduction of microbes is critical for prevention of infection. Specific respiratory care issues involve proper equipment handling, cleaning, disinfection, and storage of equipment, as well as use of evidence-based practices that reduce the risk of infection to patients, healthcare personnel, and visitors. Application of bundles to prevent ventilator-associated pneumonias has led to decreases in rates.

2.0 DEFINITION (S):

2.1. ***Respiratory Therapist*** – A healthcare worker, who assesses, treats and cares for patients that have breathing or cardiopulmonary disorders. Respiratory Therapy work with equipments, such as mechanical ventilators and environmental control systems, and test a patient breathing capacity to determine the concentration of Oxygen and other kinds of gasses in the blood.

2.2. ***Respiratory Therapy*** – is the treatment, under the care of a licensed physician, of those patients that have a breathing disorder.

3.0 POLICY STATEMENT(S):

3.1. Guidelines for the prevention and control of Ventilator Associated Pneumonia (VAP) shall be followed because to reduce morbidity and mortality associated with healthcare associated pneumonia.

4.0 EQUIPMENTS /MATERIALS /FORMS:

4.1. Personal Protective Equipment – gowns/gloves/mask

4.2. Respiratory care service activities may include cardiopulmonary diagnostics, emergency resuscitation, the administration of medical gases and aerosolized medications, bronchial hygiene therapies, airway management procedures, lung expansion therapies, mechanical ventilation, and blood gas sampling and analysis.

5.0 ROLES AND RESPONSIBILITIES:

5.1. All healthcare workers involved in respiratory care are accountable for the implementation of this policy.

5.2. Infection Preventionists are held responsible to monitor healthcare compliance to this policy.

6.0 PROCEDURE:

6.1. APPROPRIATE CARE OF DEVICES USED IN RESPIRATORY THERAPY

6.1.1. Noncritical devices require low-level disinfection (LLD). Those devices either do not ordinarily touch the patient or touch only intact skin.

6.1.2. Semi critical devices require high-level disinfection (HLD). This is the minimal requirement for devices that come into contact with intact mucous membranes and do not penetrate sterile tissue. HLD is defined as the destruction of all vegetative microorganisms, mycobacteria, small or nonlipid viruses, medium- or high-lipid viruses, fungal spores, and most bacterial spores.

6.1.3. Critical devices require sterilization. This is the requirement for devices that normally enter sterile tissue or body sites, or those that flow through the vascular system. Sterilization is the destruction of all microbial life.

6.2. General measures:

6.2.1. Clean all equipment and devices to be sterilized or disinfected.

6.2.2. Whenever possible, use steam sterilization or perform HLD for semicritical devices following the procedures outlined in 36. Pneumonia.

6.2.3. Use sterile water for rinsing reusable devices and equipment if possible. If this is not feasible, use filtered water or tap water followed by a rinse with isopropyl alcohol.

6.2.4. Dry with forced air or in a drying cabinet.

6.2.5. Store to prevent further contamination.

6.3. Mechanical ventilators:

6.3.1. Do not routinely sterilize or disinfect the internal machinery of the ventilators.

6.3.2. Perform routine LLD of the outer surfaces following manufacturer recommendations, facility procedure, and using an LLD approved for healthcare use by the Environmental Protection Agency (EPA).

6.4. Breathing circuits, humidifiers, and heat/moisture exchangers (HME):

6.4.1. Unless visibly soiled or mechanically malfunctioning, do not change routinely.

6.4.2. Periodically drain and discard any condensate collecting in the tubing of a mechanical ventilator in a manner that does not allow the condensate to drain toward the patient.

6.4.3. Wear gloves to perform the previous procedure and/or when handling the fluid, and perform appropriate hand hygiene afterward.

6.4.4. High-efficiency bacterial filters are to be used on the expiratory arms of the ventilator circuit. The filters should not be placed between the inspiratory arm of the humidifier and the patient.

6.5. Ventilator breathing circuits with HMEs:

6.5.1. Change an HME only when it becomes visible contamination or mechanically malfunctions.

6.5.2. Do not change the breathing circuit attached to the HME routinely in the absence of malfunction or visible contamination while it is in use on the same patient.

6.6. Humidifier fluids:

6.6.1. Use sterile (not distilled, nonsterile) water to fill bubbling humidifiers.

6.6.2. Humidifiers do not need to be changed daily for reasons of infection control or technical performance.

6.6.3. They can be used for at least 48 hours and, with some patient populations, up to 1 week.

6.7. Oxygen humidifiers:

6.7.1. Follow manufacturers- instructions for use of oxygen humidifiers.

6.7.2. Tubing, prongs, and masks should be single-patient use and changed if visibly contaminated or malfunctioning.

6.8. Small-volume medication nebulizers, in-line and handheld:

6.8.1. Between treatments on the same patient, clean, disinfect, and rinse with sterile water.

6.8.2. Allow to dry and store in a manner that prevents contamination.

6.8.3. Use only sterile fluid and medication and dispense into the nebulizer aseptically.

6.8.4. Use single-dose medication whenever possible.

6.8.5. If multidose vials are used, follow manufacturers- instructions for storage and use no more than 28 days from date of opening or until the expiration date (whichever is first).

6.8.6. Nebulizers should not be reused between patients without HLD or sterilization.

6.9. Mist tents:

6.9.1. Between use on different patients, replace mist tents and their nebulizers, reservoirs, and tubing or sterilize or HLD.

6.9.2. No recommendations currently exist about frequency of changing while in use on one patient.

6.9.3. If they are changed for use on the same patient, then perform LLD followed by air drying of the unit.

6.10. Other devices used in association with respiratory therapy:

6.10.1. Portable respirometer and ventilator thermometers: sterilize or HLD between patients.

6.10.2. Resuscitation bags: sterilize or HLD between patients following manufacturers recommendations and completely disassembling the bag.

6.10.3. Incentive spirometry is frequently used at the bedside and is single-patient use. If visible secretions are present on the mouthpiece or connecting tubing, they should be cleaned with soap and water, rinsed, and air dried.

6.10.4. Airway clearance devices: most are single-patient use; follow manufacturer-s recommendations for reuse on the same patient.

6.11. Pulmonary-function testing equipment:

6.11.1 Do not routinely sterilize or disinfect the internal machinery of pulmonary-function testing machines between uses on different patients.

6.11.2. Perform LLD of any surfaces of the equipment handled by the patient between each patient following the manufacturers- recommendations.

6.12. Bronchoscope equipment:

6.12.1. Clean external ports, surfaces, and internal channels mechanically with water and an enzymatic detergent prior to processing.

6.12.2 Biopsy forceps and specimen brushes are to be sterilized after washing.

6.12.3. Follow manufacturers- recommendations for HLD or sterilization.

6.12.4. If an automated disinfector is not used to process the bronchoscope, allow disinfectant solution to perfuse through all channels as instructed by the HLD solution-s manufacturer following time and temperature recommendations.

6.12.5. Follow appropriate procedure for testing and changing the HLD solution.

6.12.6. The endoscope and inner channels should be washed with sterile water or, if this is not practical, then clean tap water followed by an alcohol rinse.

6.12.7. The endoscope and inner channels are completely dried using clean, forced air.

6.12.8. Store in a manner that prevents contamination of the scope.

7.0. APPROPRIATE INFECTION PREVENTION MEASURES FOR COMMON RCS PROCEDURES:

In addition to hand hygiene and Standard and Transmission-based Precautions, care should be taken to prevent spread of infection when performing common RCS procedures as follows:

7.1. Care of patients with tracheostomies:

7.1.1. Tracheostomies should be performed under sterile conditions. Performing them in surgery is preferred, but circumstances and patient condition may dictate that they are performed at the bedside.

7.1.2. When changing a tracheostomy tube, wear a gown, use aseptic technique, and replace the tube with one that has been sterilized or undergone HLD.

7.1.3. Application of antimicrobial topical agents at the tracheostoma is not recommended as a routine part of patient care.

7.1.4. Routine cuff deflation is not recommended.

7.1.5. Ensure proper cuff pressure with minimal leak or minimal occluding pressure.

7.2. Suctioning of respiratory tract secretions:

7.2.1. Use either a multiuse closed-system catheter or a single-use open-system catheter for prevention of pneumonia.

7.2.2. If saline is installed prior to suctioning, it must be sterile.

7.2.3. No recommendation has been made about the frequency of routinely changing the in-line suction catheter in use on one patient.

7.2.4. If the open-system suction is used, use a sterile, single-use catheter each time.

7.3. Artificial airways:

7.3.1. Select critically ill patients for tracheotomies if long-term intubation is likely.

7.3.2. Keep head of bed elevated 30 to 40 degrees unless medically contraindicated.

7.3.3. Oral intubation may be preferred to nasal intubation, as the latter is associated with sinusitis.

7.3.4. Routine cuff deflation is not recommended.

7.3.5. Ensure proper cuff pressure with minimal leak or minimal occluding pressure.

7.3.6. Specialized endotracheal tubes with suction ports proximal to the cuff allow for subglottic secretion aspiration and do show benefit.

7.4. Blood sampling and transcutaneous monitoring:

to ensure safety of the person performing the arterial stick and prevent transmission of infection, the following steps need to be part of the facility procedure:

7.4.1. Use sterile single-patient syringes equipped with safety needles.

7.4.2. Wear exam gloves and, if indicated, mask and goggles (or mask with an attached face shield).

7.4.3. Prep the site thoroughly with a chlorhexidine gluconate (CHG) solution using a back-and-forth scrubbing motion. Allow to dry at least 1 minute. If allergies prevent use of the CHG, betadine or isopropyl alcohol (70 percent) may be used. The latter solutions may require longer prepping and drying times.

7.4.4. Perform the procedure using aseptic technique.

7.4.5. Cover the puncture site with sterile gauze squares or bandages when bleeding has ceased.

7.4.6. Discard sharps in an appropriate rigid, biohazard container when no longer needed.

8.0. PREVENTION OF VENTILATOR-ASSOCIATED PNEUMONIA:

8.1. Education of healthcare personnel who care for patients undergoing ventilation about VAP, including:

8.1.1. Local epidemiology

8.1.2. Risk factors

8.1.3. Patient outcomes.

8.2. Educate clinicians who care for patients undergoing ventilation about noninvasive ventilator strategies.

8.3. Perform surveillance of VAP, including:

8.3.1. Direct observation of compliance with VAP-specific process measures.

8.3.2. Use structured observation tools at regularly schedule intervals.

8.3.3. Report the outcomes and results to the key stakeholders.

8.4. Implement policies and practices for disinfection, sterilization, and maintenance of respiratory equipment that are aligned with evidence-based standards (e.g., guidelines from the CDC and professional organizations).

8.55. Ensure that all patients are maintained in a semirecumbent position unless contraindicated by their medical condition. For the latter, consider using reverse Trendelenburg.

8.6. Perform regular, antiseptic oral care in accordance with the product guidelines.

8.7. Unless sedation is medically required, perform a daily sedation -vacation- to establish readiness for weaning to minimize time of mechanical ventilation.

8.8. Provide easy access to noninvasive ventilation equipment and institute protocols to promote the use of noninvasive ventilation.

8.9. Establish accountability for ensuring prevention of VAP:

8.9.1. Senior management must support the infection prevention and control program with effective resources and staffing to effectively prevent VAP.

8.9.2. Senior management is accountable for ensuring that healthcare personnel are competent to perform their job responsibilities.

8.9.3. Direct healthcare providers and ancillary personnel are responsible for ensuring that appropriate infection prevention practices are used at all times.

8.9.4. Healthcare and unit leaders are responsible for holding their personnel accountable for their actions.

8.9.5. The person who manages the infection prevention and control program is responsible for ensuring that an active program to identify VAP is implemented, that data on VAP are analyzed and regularly provided to those who can use the information to improve the quality of care, and that evidence-based practices are incorporated into the program.

9.0 RELATED POLICY / CROSS REFERENCES:

9.1. Dudeck MA, Horan T, Peterson KD, et al. National Healthcare Safety Network (NHSN) Report, Data Summary for 2011, Device-Associated Module.CDC website, April 2013, Available at: http://www.cdc.gov/nhsn/PDFs/dataStat/NHSN-Report-2011-Data-Summary.pdf.

9.2. Surveillance for Ventilator-associated Events. CDC/NHSN website. Available at: http://www.cdc.gov/nhsn/acute-care-hospital/vae/.

9.3. GCC manual of infection control 3rd edition.

10.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	05 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LINAN NURSING DIRECTOR	05 MAR 2019
	Dr. Roberto Jorge Caraballoso	Head of ICU	Dr. Roberto J. Espinosa	07 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No: 13-R-M-004609	11 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		19 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		24 MAR 2019

11.0 POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC23-1	April 1, 2012
Replaced by	IDP-IC-002(2)	April 1, 2014
Deleted	IDP-IC-002(3)	April 1, 2016
Replaced by New Policy and Procedure	IDP-IC-002(4)	April 1, 2019

INTERDEPARTMENTAL POLICY AND PROCEDURE (IDP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
CARE OF PERIPHERAL & CENTRAL VENOUS CATHETER			IDP-IC-003(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	IDP-IC-003(3)	9
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS PARTICULARLY THOSE WHO INSERTS AND MAINTAINS INTRAVENOUS CATHETERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To reduce the incidence of intravascular catheter-related infections.

1.2. To utilize intravascular access in a safe and effective standardized way in order to improve patient outcome and reduce healthcare costs.

2.0 DEFINITION (S):

To provide guidelines regarding appropriate catheters and catheter sites, aseptic insertions, and maintenance of catheter sites.

3.0 POLICY STATEMENT(S):

3.1. All personnel responsible for instituting intravenous therapy shall follow appropriate infection prevention and control measures during insertion and maintenance of the system to prevent blood stream infection.

4.0 COMMENTS:

4.1. Intravascular device (IVD)/line is used as a means of direct access to the patient's vascular system for the administration of pharmaceutical agents or fluids that cannot be administered as effectively by other means. IVD is an integral part of patient care.

4.2. Central venous catheter (CVC) may be used to access the great veins for infusion of irritant solutions or to facilitate hemodynamic monitoring. Central venous lines are also used to provide prolonged venous access.

4.3. All lines provide a potential portal of entry for microorganisms to enter the vascular system and cause local or systemic infectious complications such as septic thrombophlebitis, bloodstream infections, and metastatic infections. Catheter-related infections are associated with increased morbidity, mortality, medical costs and prolonged hospitalization.

The following recommendations, if followed, will reduce the occurrence of catheter-related infections.

4.4. Follow IVD care protocols and maintain a consistent, high level of aseptic technique during catheter insertion; HCWs must adhere strictly to all care protocols during follow-up care of the catheter. When adherence to aseptic technique cannot be ensured (i.e., catheters inserted during a medical emergency), the catheter will be replaced as soon as possible within 48 hours, taking into consideration the stability of the patient

4.5. Ensure all necessary equipment is present for IV or CVC insertion by creating a checklist before the procedure.

4.6. All intravenous devices provide a potential portal of entry for microorganisms to enter the vascular system and cause local or systemic infectious complications such as septic thrombophlebitis, bloodstream infections, and metastatic infections. When feasible, it is always preferred to switch from intravenous to oral therapy as soon as patients are clinically stable.

5.0 EQUIPMENTS /MATERIALS /FORMS:

5.1 PPE – gloves, masks, gowns, eyewear.

5.2 2% chlorhexidine gluconate, 70% isopropyl alcohol, 10% povidone-iodine.

5.3 Dressing tray, sterile gauze, plaster, scissors.

6.0 ROLES AND RESPONSIBILITIES:

6.1 All healthcare workers involved in the management and care of intravenous catheters are accountable for the implementation of this policy.

6.2 Infection Control Practitioner is responsible for strict monitoring to the implementation of this policy.

7.0 PROCEDURE:

7.1 EDUCATION, TRAINING AND STAFFING

7.1.1. Educate HCWs regarding indications for intravascular catheter use; proper procedures for the insertion and maintenance of intravascular catheters; and clean or surgical techniques to prevent intravascular catheter-related infections. Refer to Aseptic Technique below.

7.1.2. Periodically assess knowledge of and adherence to guidelines of all personnel involved in the insertion and maintenance of intravascular catheters.

7.1.3. Designate only trained personnel who demonstrate competence in the insertion and maintenance of peripheral and central intravascular catheters.

7.1.4. When possible, use simulation training for insertion and maintenance techniques.

7.1.5. Ensure appropriate nursing staff levels in intensive care units.

7.2 HEALTHCARE WORKER SAFETY (STANDARD PRECAUTIONS):

7.2.1. Wear sterile gloves to avoid sharps injury and to protect hands against blood and body fluid exposure.
7.2.2. Wear a surgical mask with an eye shield or goggles to protect against any potential blood or body fluid splash onto the mucous membranes of the face.
7.2.3. Do not manipulate or recap used needles and promptly dispose of them into hospital approved sharps containers kept near the location of the procedure.

7.3 HAND HYGIENE AND ASEPTIC TECHNIQUE:

7.3.1. Perform hand hygiene prior to device insertion and subsequent handling of the device or its administration, such as before and after palpating, inserting, replacing, or dressing the device.
7.3.2. Do not palpate insertion sites after application of antiseptic. Maintain aseptic technique for the insertion and care of intravascular catheters.
7.3.3. Wear clean gloves, rather than sterile gloves, for the insertion of peripheral intravascular catheters, if the access site is not touched after the application of skin antiseptics.
7.3.4. Wear sterile gloves for the insertion of arterial, central, and midline catheters.
7.3.5. Use new sterile gloves before handling the new catheter when guidewire exchanges are performed.
7.3.6. Wear either clean or sterile gloves when changing the dressing on intravascular catheters.

7.4 MAXIMAL STERILE BARRIER PRECAUTIONS:

7.4.1. Use maximal sterile barrier precautions, including the use of a cap, mask, sterile gown, sterile gloves, and sterile full body drape, for the insertion of CVCs, PICCs, or guidewire exchange.
7.4.2. Use sterile sleeve to protect pulmonary artery catheters during insertion.

7.5 SELECTION OF CATHETERS AND SITES:

7.5.1 **Peripheral and Midline Catheter Recommendations:**

7.5.1.1. In adults, use an upper extremity site for catheter insertion. Replace a catheter inserted in a lower extremity site to an upper extremity site, as soon as possible.
7.5.1.2. In pediatric patients, use the upper or lower extremities or the scalp (in neonates or young infant) as the catheter insertion site.
7.5.1.3. Select catheters on the basis of intended purpose and duration of use; known infectious and non-infectious complications (i.e., phlebitis and infiltration); and, experience of the individual catheter operators.
7.5.1.4. Avoid the use of steel needles for the administration of fluids and medications that might cause tissue necrosis if extravasation occurs.
7.5.1.5. Use a midline catheter or peripherally inserted central catheter (PICC), instead of a short peripheral catheter, when the duration of IV therapy will likely exceed six days.
7.5.1.6. Evaluate the catheter insertion site daily by palpation through the dressing to discern tenderness and by inspection if a transparent dressing is in use.
7.5.1.7. Remove peripheral venous catheters if the patient develops signs of phlebitis (e.g., warmth, tenderness, erythema or palpable venous cord); infection; or malfunctioning catheter.
7.5.1.8. Replace the catheter as soon as possible when adherence to aseptic technique cannot be ensured (i.e., within 48 hours).

7.6 SKIN PREPARATION:

7.6.1. Prepare the skin with an antiseptic approved by the Infection Prevention and Control (IP&C) Department. A 2% chlorhexidine gluconate (CHG) preparation with alcohol can be used before central line insertion and during change of dressing.

7.6.2. If there is a contraindication to CHG an alternative antiseptic with 70% alcohol, tincture of iodine, or an iodophor can be used on patients. Follow these procedures when preparing the site:

7.6.2.1. Perform hand hygiene.

7.6.2.2. Don gloves.

7.6.2.3. If the intended insertion site is visibly soiled, clean with soap and water before applying the antiseptic (i.e., >2% CHG preparation with alcohol) using a back-and-forth motion for at least 30 seconds to remove flora that would otherwise be introduced into the vascular system.

7.6.2.4. Do not palpate the insertion site after the skin has been prepared with antiseptic unless the practitioner is employing maximum barrier precautions in a sterile field to maintain asepsis

7.6.3. Antiseptics should be allowed to dry according to the manufacturer's recommendation prior to placing the catheter.

7.7 CATHETER SITE DRESSING MANAGEMENT:

7.7.1. Use either sterile gauze or sterile transparent, semi-permeable dressing to cover the catheter site.

7.7.2. If the patient is diaphoretic or if the site is bleeding or oozing, use a gauze dressing until this is resolved.

7.7.3. Replace catheter site dressing if the dressing becomes damp, loosened, or visibly soiled.

7.7.4. Do not use topical antibiotic ointment or cream on insertion sites, except for dialysis catheters, because of their potential to promote fungal infections and antimicrobial resistance.

7.7.5. Do not submerge the catheter or catheter site in water. Showering should be permitted if precautions can be taken to reduce the likelihood of introducing organisms into the catheter (i.e., if the catheter and connecting device are protected with an impermeable cover during the shower).

7.7.6. Replace dressings used on short-term central venous catheter (CVC) sites every 2 days for gauze dressing.

7.7.7. Replace dressing used on short-term CVC sites at least every 7 days for transparent dressing, except for pediatric patient with risk of dislodging the catheter that may outweigh the benefit of changing the dressing.

7.7.8. Replace transparent dressings used on tunneled or implanted CVC sites no more than once a week (unless the dressing is soiled or loose), until the insertion site has healed.

7.7.9. Ensure that the catheter site care is compatible with the catheter material.

7.7.10. Use a sterile sleeve for all pulmonary artery catheters.

7.7.11. Use a chlorhexidine-impregnated sponge for temporary short-term catheters in patients older than 2 months of age if the CLABSI rate is not decreasing despite adherence to basic prevention measures, including education and training on appropriate use of CHG for skin antisepsis.

7.7.12. Monitor the catheter sites visually when changing the dressing or by palpation through an intact dressing on a regular basis, depending on the clinical situation of the individual patient. If patients have tenderness at the insertion site, fever without obvious source, or other manifestations suggesting local or bloodstream infection, the dressings should be removed to allow thorough examination.

7.7.13. Encourage patient to report any changes in their catheter site or any new discomfort to their provider.

7.8 CENTRAL VENOUS CATHETERS (CVC):

7.8.1. Points to remember:

7.8.1.1. Insert CVCs only when indicated, remove any intravascular line when no longer needed.

7.8.1.2. Use an all-inclusive catheter kit or cart.

7.8.1.3. Use single-lumen CVC unless multiple ports are essential for patient care.

7.8.1.4. Always use a CVC insertion checklist such as the central line bundle to ensure adherence to infection prevention practices at the time of insertion.

7.8.1.5. CVC insertion should be observed by a nurse or physician who has received appropriate education to ensure that aseptic technique is maintained.

7.8.1.6. HCWs should be empowered to stop the procedure if breaches in aseptic technique are observed until corrective actions are taken.

7.8.2. At insertion, clean hands by using an alcohol-based waterless product or antiseptic soap and water.

7.8.3. Site and catheter selection

7.8.3.1. Weigh the risks and benefits of placing a device at a recommended site to reduce infectious complications against the risk of mechanical complications (e.g., pneumothorax, subclavian artery puncture, thrombosis, hemothorax).

7.8.3.2. Avoid using the femoral vein for central venous access in adult patients.

7.8.3.3. Use a subclavian site rather than a jugular or a femoral site, in adult patients to minimize infection risk for non-tunneled CVC placement.

7.8.3.4. Avoid the subclavian site in hemodialysis patients and patients with advanced kidney disease to avoid subclavian vein stenosis.

7.8.3.5. Use fistula or graft in patient with chronic renal failure instead of a CVC for permanent access for dialysis.

7.8.3.6. Use ultrasound guidance to place CVC (if this technology is available) to reduce the number of cannulations attempts and mechanical complications. Ultrasound guidance should only be used by those fully trained in its technique.

7.8.4. After insertion, dressing the site:

7.8.4.1. Use a CHG containing dressing for CVCs in patients over 2 months of age, and change it every 7 days or immediately if it is soiled, loose, or damp.

7.8.4.2. Use gauze dressing if blood is oozing from the insertion site and if patient is diaphoretic and change it every 2 days or earlier if the dressing becomes soiled, lose or damp.

7.8.5. Accessing the site:

7.8.5.1. Perform hand hygiene.

7.8.5.2. Always disinfect catheter hubs before every access to the port, needleless connectors, and injection ports before accessing the catheter. Disinfection involves applying mechanical friction for no less than 15 seconds using the hospital-approved antiseptics.

7.8.5.3. Whenever available, use an antiseptic-containing hub/connector cap or port protector to cover connectors and use according to manufacturer's instructions.
7.8.6. Special approaches for prevention of CLABSI
7.8.6.1. Bathe ICU patients older than 2 months of age with a CHG preparation on a daily basis. Use with caution in premature infants or infants under 2 months of age as this product may cause irritation or chemical burns.
7.8.6.2. Use antiseptic- or antimicrobial–impregnated central venous catheters for adult patients.
7.8.6.3. Use CHG–containing sponge dressings for CVCs in patients older than 2 months of age.
7.8.6.4. Use antimicrobial locks for CVCs.

7.9 REPLACEMENT OF CVCS, INCLUDING PICCS AND HEMODIALYSIS CATHETERS:

7.9.1. Do not routinely replace CVCs, PICCs, hemodialysis catheters, or pulmonary artery catheters to prevent catheter-related infections.
7.9.2. Do not remove CVCs or PICCs on the basis of fever alone. Use clinical judgment regarding the appropriateness of removing the catheter if infection is evidence elsewhere or if a non-infectious cause of fever is suspected.
7.9.3. Do not use guidewire exchanges routinely for non-tunneled catheters to prevent infection.
7.9.4. Do not use guidewire exchanges to replace a non-tunneled catheter suspected of infection.
7.9.5. Use a guidewire exchange to replace a malfunctioning non-tunneled catheter if no evidence of infection is present.
7.9.6. Use new sterile gloves before handling the new catheter when guidewire exchanges are performed.
7.9.7. Replacement of peripheral and mid-line catheter:
7.9.7.1. There is no need to replace peripheral catheters more frequently than every 72-96 hours to reduce risk of infection and phlebitis in adults.
7.9.7.2. Replace peripheral catheters in children only when clinically indicated.
7.9.7.3. Replace midline catheters only when there is a specific indication.

7.10 UMBILICAL CATHETERS:

7.10.1. Remove and do not replace umbilical artery catheters if any signs of catheter-related bloodstream infections (CRBSI); vascular insufficiency in the lower extremities; or thrombosis is present.
7.10.2. Remove and do not replace umbilical venous catheters if any signs of CRBSI or thrombosis are present.
7.10.3. Clean the umbilical insertion site with an antiseptic before catheter insertion. Avoid tincture of iodine because of the potential effect on the neonatal thyroid. Other iodine-containing products (i.e., povidone-iodine) can be used.
7.10.4. Do not use topical antibiotic ointment or cream on umbilical catheter insertion sites because of the potential to promote fungal infections and antimicrobial resistance.
7.10.5. Add low-dose heparin (0.25-1.0 U/ml) to the fluid infused through the umbilical arterial catheters.
7.10.6. Remove umbilical catheters as soon as possible when no longer needed or when any sign of vascular insufficiency to the lower extremities is observed. Optimally, umbilical artery catheters should not be left in place >5 days.
7.10.7. Umbilical venous catheters should be removed as soon as possible when no longer

needed, but can be used up to 14 days if managed aseptically.

7.11 PERIPHERAL ARTERIAL CATHETERS AND PRESSURE MONITORING DEVICES FOR ADULT AND PEDIATRIC PATIENTS:

7.11.1. In adults, use the radial, brachial, or dorsalis pedis sites over the femoral or axillary sites of insertion to reduce the risk of infection.
7.11.2. In children, do not use the brachial site. Use the radial, dorsalis pedis, and posterior tibial sites over the femoral or axillary sites.
7.11.3. Use a minimum cap, mask, sterile gloves and small sterile fenestrated drape during peripheral arterial catheter insertion.
7.11.4. Use a minimum cap, mask, sterile gloves and small sterile fenestrated drape during peripheral arterial catheter insertion.
7.11.5. Use maximal barrier precautions during axillary or femoral artery catheter insertion.
7.11.6. Replace arterial catheters only when there is a clinical indication.
7.11.7. Remove arterial catheter as soon as it is no longer needed.
7.11.8. Use disposable, rather than reusable transducer assemblies, when possible.
7.11.9. Do not routinely replace arterial catheters to prevent catheter-related infections.
7.11.10. Replace disposable or reusable transducers at 96-hours intervals. Replace other components of the system (including the tubing, continuous flush device, and flush solution) at the time the transducer is replaced.
7.11.11. Keep sterile all components of the pressure monitoring system (including calibration devices and flush solution).
7.11.12. Minimize the number of manipulation and entries into the pressure monitoring system.
7.11.13. Use a closed flush system (i.e., continuous flush), rather than an open system (i.e., one that requires a syringe and stopcock), to maintain the potency of the pressure monitoring catheters.
7.11.14. When the pressure monitoring system is accessed through a diaphragm rather than a stopcock, scrub the diaphragm with an appropriate antiseptic before accessing the system.
7.11.15. Do not administer dextrose-containing solutions or parenteral nutritional fluids through the pressure monitoring circuit.
7.11.16. Sterilize reusable transducers according to the manufacturer's instruction if the use of disposable transducer is not feasible.

7.12 REPLACEMENT OF ADMINISTRATION SETS:

7.12.1. In patients not receiving blood, blood products, or fat emulsions, replace administration sets that are continuously used, including secondary sets and add-on devices no more frequently than at 96-hour intervals.
7.12.2. Tubing sets used for the administration of blood products will be replaced every 4 hours.
7.12.3. Tubing sets used for the administration of lipid emulsions will be replaced every 24 hours.
7.12.4. Tubing sets used to administer total parenteral nutrition (TPN) will be replaced within 24 hours of initiating the infusion.
7.12.5. Needle components will be changed as frequently as administration sets.

7.13 NEEDLELESS INTRAVASCULAR CATHETER SYSTEMS

7.13.1. Change the needleless connectors no more frequently than every 72 hours or according to manufacturers' recommendations for the purpose of reducing infection rates.
7.13.2. Ensure that all components of the system are compatible to minimize leaks and breaks in

the system.

7.13.3. Minimize contamination risk by scrubbing the access port with an appropriate antiseptic and access the port only with sterile devices.

7.13.4. Use a needleless system to access IV tubing.

7.13.5. When needleless systems are used, a split septum valve may be preferred over some mechanical valves due to the increased risk of infection with mechanical valves.

7.14 INTRAVENOUS INJECTION PORTS:

Disinfect the injection ports, catheter hubs, and needless connectors with an alcoholic chlorhexidine gluconate solution or 70% alcohol before accessing the system to reduce contamination.

7.15 PREPARATION AND QUALITY CONTROL OF INTRAVENOUS ADMIXTURES:

7.15.1. Mix all parenteral fluids in the pharmacy only.

7.15.2. Check all containers of parenteral fluid for visible turbidity, leaks, cracks, particulate matter, and the manufacturer's expiration date before use.

7.15.3. Use single-dose vials for parenteral additives or medications whenever possible.

7.15.4. If multidose vials are used:

7.15.4.1. Note the date and time on the multidose vials once opened.

7.15.4.2. Refrigerate the multidose vial after opening if recommended by the manufacturer.

7.15.4.3. Cleanse the rubber diaphragm of the multidose vial with alcohol before inserting a device into the vial.

7.15.4.4. Use a sterile device each time a multidose vial is accessed and avoid touch contamination of the device prior to penetrating the rubber diaphragm.

7.15.4.5. Discard multidose vials when suspected or visible contamination occurs, when the manufacturer's expiration date is reached, or when the nursing policy expiration date is reached.

7.16 DOCUMENTATION:

Document the following information for all procedures related to IV therapy in the patient 's record:

7.16.1. Date and time of insertion.

7.16.2. Type of device used and site of insertion.

7.16.3. Type of fluid administered.

7.16.4. Name(s) of person(s) who inserted the device.

7.16.5. Date and time of device termination or guidewire exchange.

8.0 RELATED POLICY / CROSS REFERENCES:

8.1.1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 34: Intravascular device infection. In APIC Text of infection control and epidemiology (4th ed.).

8.2.2. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 38: Burns. In APIC Text of infection control and epidemiology (4th ed.).

8.3.3. Centers for Disease Control and Prevention (CDC). Guidelines for preventing the transmission of mycobacterium tuberculosis in healthcare settings. MMWR, 2005.

8.4.4. Centers for Disease Control and Prevention (CDC). Guideline for prevention of intravascular device-related infections. Recommendations and reports, MMWR, 2002/51(RR10)

8.5.5. O'Grady NP, Alexander M, Burns L, et al. Guidelines for the Prevention of Intravascular Catheter-Related Infections, 2011. HICPAC. Centers for Disease Prevention and Control (CDC). Downloaded from: http://www.cdc.gov/hicpac/pdf/guidelines/bsi-guidelines-2011.pdf.

8.6.6. SHEA/IDSA practice recommendations, Strategies to Prevent Central-line Associated Bloodstream Infections in Acute Care Hospitals: 2014 update. Infection control and hospital epidemiology. July 2014; 35:7.

9.0 APPROVAL:

	Name	Title	Signature	Date
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	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR	12 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Mr. Khalid Al Mutairi QM Director	7 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		14 MAR 2019

10.0 POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC 24-1	April 1, 2012
Replaced by	IDP-IC-003(2)	April 1, 2014
Deleted	IDP-IC-003(3)	April 1, 2016
Replaced by New Policy and Procedure	IDP-IC-003(4)	April 1, 2019

INTERDEPARTMENTAL POLICY AND PROCEDURE (IDP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
CENTRAL STERILIZATION AND SUPPLY DEPARTMENT			IDP-IC-004(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	IDP-IC-004(3)	10
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS IN CENTRAL STERILIZATION AND SUPPLY DEPARTMENT (CSSD) OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To guide CSSD personnel about transporting, sorting, disassembling, cleaning, sterilizing, disinfecting and distributing reprocessed items.

1.2. To provide sterilized material from a central department where sterilizing practice is conducted under conditions, which are controlled, thereby contributing to reduction in the incidence of hospital infection.

2.0 POLICY STATEMENT(S):

2.1. CSSD staff must be well-trained and skilled, and committed to "doing what's right" every step of the way. That means ensuring that shortcuts are never made and that processes and practices are consistently followed.

2.2. CSSD staff shall understand the activities which will influence the risk of infection acquisition while processing the equipment and the correct processing procedure to ensure adequate sterility of the items to prevent transmission of microorganisms to the patients.

3.0 EQUIPMENTS /MATERIALS /FORMS:

3.1. CSSD equipment for cleaning and sterilization

3.2. Personal Protective Equipment (gloves/gown/mask/goggles)

4.0 ROLES AND RESPONSIBILITIES:

4.1. The responsibilities of the central sterilization service are to clean, decontaminate, test,

prepare for use, sterilize and store aseptically all sterile hospital equipment.

4.2. The director of this service must:

4.2.1. Oversee the use of different methods – physical, chemical and bacteriological.

4.2.2. To monitor the sterilization process.

4.2.3. Ensure technical maintenance of the equipment according to national standards and manufacturers' recommendations report any defect to administration, maintenance, infection control and other appropriate personnel.

4.2.4. Maintain complete records of each autoclave run.

5.0 PROCEDURE:

5.1. Personnel Restrictions

5.1.1. Restricted entrance to authorize properly attired personnel only.

5.1.2. Minimized traffic between the decontamination and preparation and assembly areas.

5.1.3. Maintained strict separation of entrance/exit areas, clean and soiled areas.

5.1.4. It is a requirement that there be physical barrier separating the decontamination area from the areas where all other processing activities performed.

5.2. Staff Areas

5.2.1. Offices should be located near the entrance of CSSD so changing of clothes is not required.

5.2.2. Lockers should be provided for the staff.

5.2.3. A separate lounge area should be provided.

5.2.4. Conference facilities should be available.

5.3. Hand washing facilities

5.3.1. Separate hand washing facilities should be easily accessible and must be provided in each area.

5.3.2. The location of a hand basin in packaging and storage areas must take into consideration, the risk of sink splash contacting preparation areas and sterile consumables or packs (linen wrapped).

5.3.3. If a hand basin is unable to be located in this area, it should be located outside the room in close proximity to the entry.

5.4. Environmental Requirements

Processing and storage areas will require mechanical ventilation.

5.4.1. Ventilation

5.4.1.1. Air flow from clean to dirty

5.4.1.2. 10 air exchange per hour

5.4.1.3. Temperature 18° to 22°C.

5.4.1.4. Humidity 35 – 70%.

5.4.2. Airflow

5.4.2.1. Decontamination, rest rooms and sterilizer equipment access areas need negative pressure (ventilation) air flow (to keep contaminants in the room).

5.4.2.2. Clean workroom, sterilizer loading and unloading areas and sterile storage areas should have positive pressure (ventilation) airflow (to blow possible contaminants and keep them from entering the room).

5.4.2.3. All areas (decontamination, clean processing, area designated for packing and folding linen and related materials and sterilizer equipment rooms) should have direct exhausting of all air to the outdoors.

5.4.2.4. Airflow should be clean, soiled areas and exhausted to the outdoors.

5.4.2.5. At least 10-air exchange per hour, negative air pressure; exhaust to the outside or filtered if recirculated.

5.4.3. Finishes

5.4.3.1. In processing areas, finishes suitable for frequent cleaning and tolerant to cleaning agents.

5.4.3.2. Worktops, sinks etc. built up to walls and any gaps sealed. However, to permit easy cleaning and maintenance of the IAP room, it is advisable that workstations and storage units must not be fixed.

5.4.3.3. Provide protection for finishes areas, where loaded trolleys are in use to prevent accidental damage.

5.4.4. Floors

5.4.4.1. Throughout the processing areas, stores and circulation spaces, a uniform floor level shall be maintained.

5.4.4.2. The flooring must be turned up at walls using an integral coved skirting.

5.4.4.3. A soft floor finish is suitable in the offices, staff rest room and training room.

5.4.5. Walls

5.4.5.1. In storage and processing areas in particular, solid walls rendered to a hard-smooth finish to with stand heavy treatment and for ease of repair.

5.4.5.2. Epoxy coating or a sprayed paint finish is appropriate in processing areas. These finishes, or emulsion paint, are also appropriate in stores and circulation areas. Sponge able wallpaper or emulsion paint is suitable in staff areas and offices.

5.4.5.3. Walls should be protected against accidental damage from wheeled traffic by buffer rails and corner guards, which should be appropriately sited to reflect the specifications of trolleys in use.

5.4.6. Door sets

5.4.6.1. Doors must be adequately sized to allow clear passage of equipment.

5.4.6.2. Automatic/semi-automatic doors are necessary to make it easier for collection and distribution trolleys to pass unimpeded and prolong the fabric of the building.

5.4.6.3. Doors shall be fail-safe to allow emergency exit in the event of fire, or power failure.

5.4.6.4. All emergency exits shall have a means of indicating they have been opened.

5.4.6.5. Where trolley movement occurs, protection is essential on all doors and door lining.

5.4.6.6. Vision panels shall also be provided in doors that are frequently used. Consideration must be given to fire precautions.

5.4.7. Windows

5.4.7.1. Windows in the wash room shall be non-opening and sealed.

5.4.7.2. Windows must not be installed in storage areas.

5.4.7.3. Openable windows may, however, be considered for offices and staff rooms.

5.4.7.4. Good access, internally and externally, shall be provided to all windows to facilitate cleaning.

5.5. Facility Design

5.5.1. Decontamination Area

5.5.1.1. Pass thru window to preparation area.

5.5.1.2. Section sink – soaking, washing and rinsing.

5.5.1.3. Ideal sink size is 36" high, 8-19" deep and wide enough to allow instruments trays to lay flat.

5.5.1.4. Staff safety, proper cleaning and comfort are priorities.

5.5.1.5. Eyewash/shower station.

5.5.2. Preparation and Packing Area.

5.5.2.1. Airflow out of the area (positive pressure)

5.5.2.2. 10 air exchanges per hour (downdraft) to minimize lint particles in the air.

5.5.2.3. Should include space for storage of visitor attire, cleaning supplies, computer, incubators, magnifying lights, heat sealers, instruments storage and repair boxes, transfer carts, processing tables, etc.

5.5.3. Sterilization area

5.5.3.1. Adjacent to preparation and packing area

5.5.3.2. Non-porous floors, walls, ceiling surfaces.

5.5.3.3. The number of air exchanges, temperature and relative humidity rages are the same.

5.5.3.4. Should include space for sterilizers, aerators, loading carts, storage of heat resistant gloves, sterilizer cleaning supplies, record keeping supplies, hand washing facilities, etc.

5.5.4. Sterile Storage Area

5.5.4.1. Adjacent to the sterilization area, in a separate, enclosed, controlled area.

5.5.4.2. Select open wire shelves, open solid shelves or closed cabinets, depending on environment.

5.5.4.3. Minimum of 4 air exchanges out of area (via positive pressure). Environmental contamination must be minimized to avoid comprising the sterility of items.

5.6. Uniflow (Uni-Directional Procedure)

5.6.1. Collecting and receiving contaminated supplies

5.6.1.1. All equipment/supplies should consider as potentially infectious material and must be handled carefully.

5.6.1.2. Wear PPE (Gown, utility gloves, mask, goggles) for handling of all equipment.

5.6.1.3. Used equipment from patient procedures must be transported to CSSD in non-leak proof container.

5.6.2. The Decontamination

5.6.1.1. Can be done manually or with mechanical equipment depending on the item being decontaminated.

5.6.1.2. Whether manual or mechanical means are used, chemical detergents and disinfectants will be utilized as part of the process.

5.6.1.3. The washer/decontaminator process must be automated as possible, utilizing conveyors and other mechanical systems wherever possible.

5.6.1.4. Provide manual clean-up counters for heat and moisture sensitive items and small equipment items.

5.6.1.5. A pass-through window should be provided to transfer the heat and moisture sensitive items to the preparations and packaging area.

5.6.1.6. Provide a small decontamination area in procedural services for anesthesia supplies.

5.6.3. Preparation and packaging area

5.6.3.1. No food or drink allowed within work area.

5.6.3.2. Work stations and tables must be sufficient size for the assembly and racking items to be processed in the pass-through washers to the preparation and packaging area (tray make-up).

5.6.4. The Sterilization Area

5.6.4.1. The autoclave/sterilizers are placed in a separate area form the processing sections.

5.6.4.2. Monitoring

a. Routine monitoring of the sterilization procedure by using a combination of mechanical, chemical and biological indicators to evaluate the sterilizing conditions and indirectly the microbiologic status of the processed items.

b. The mechanical monitors for steam sterilization include the daily assessment of cycle time and temperature by examining the temperature record chart (or computer printout) and an assessment of pressure via the pressure gauge.

c. Chemical indicators are affixed on the outside of each pack to show that the package has been processed through a sterilization cycle, but these indicators do not prove sterilization has been achieved.

5.6.5. The Storage Area: The storage area of the CSSD items are stored until distributed for use.

5.6.5.1. There must be a separate area for the storage of sterile items and separate area for the storage of clean, non-sterile items.

5.6.5.2. Sterile storage areas are used exclusively for sterile packs not other general stores/equipment.

5.6.5.3. Sterile storage areas adjacent to the sterilization areas with closed cabinets are recommended (or shelf storage) to maintain sterilized items.

5.6.5.4. Sterile packs and general supplies off the floor and have appropriate air circulation.

5.6.5.5. If shelf storage is used, materials must be stored 20cm to 25 cm outside walls.

5.6.5.6. Space must also be provided for workstations associated with the inventory management systems and documentation of the instrument trays sets.

5.6.5.7. Any item that has been sterilized should not be used after the expiration date has been exceeded or if the sterilized package is wet, torn or punctured.

5.6.6. Distribution/Issuance area

5.6.6.1. Shall have easy outside access for hospital wide pick-up of items and equipment.

5.6.6.2. Distribution carts are expected to be closed containers that are clean and kept outside but near the distribution/storage area transporting items back to their respective units.

5.6.7. Recall of Outdated and Potentially Contaminated Supplies

5.6.7.1. All sterile items throughout the hospital must be checked for expiration dates on a routine basis. This is the responsibility of each department.

5.6.7.2. Items that have reached the marked expiration date will be immediately removed from patient care areas and returned to central Service.

5.6.7.3. Hospital processed items (instruments, linen, etc.) shall be appropriately reprocessed and sterilized.

5.6.7.4. Resterilized only if there are written instructions from the manufacturer giving specific packaging and sterilization instructions. These instructions must include specific sterilization temperatures, time exposure, drying time.

5.6.7.5. Items marked as "single use' or "disposable" shall not be reprocessed unless it is highly necessary. If processing is needed, the following should be considered:

a. Written request from surgeon
b. A committee organized to approve the procedure which includes the following: CSSD technician, Biomed Engineer, End-user concerned, Infection Control department representative.
c. Several factors that affects reprocessing:
    i. Ease in cleaning
    ii. Type of equipment – long narrow lumens
    iii. Chemical coating
    iv. Integrity and compatibility of the material
    v. Instrument performance

5.6.7.6. In the event of a potential sterilization failure, as indicated by a positive attest or biological indicator, the following procedure will be initiated:

a. Sterile processing technician will notify CSSD Manager at the first indication of a possible positive indicator. (Attest takes 48 hours, but a reading at 24 hours may give a potentially positive result.)

b. The affected sterilizer shall be immediately removed from service, until repairs are completed.

c. The load record for the questionable load shall be reviewed and all items listed will be removed from patient care areas and returned to CSSD for reprocessing.

d. It must be assumed that any items not located have been used for patient care. All attempts shall be made to identify which patients may be affected.

e. The attending physician or surgeon must be notified immediately of the potential sterilization failure by the OR supervisor.

5.6.8. Recall letters from CSSD shall be immediately sent to the appropriate departments. Any affected products shall be removed from patient care areas and returned to CSSD for return.

6.0 RELATED POLICY / CROSS REFERENCES:

6.1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 108: Laboratory safety. In APIC Text of infection control and epidemiology (4th ed.).
6.2. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 107: Environmental services. In APIC Text of infection control and epidemiology (4th ed.).
6.3. Hospital's administrative policy on management of spills of hazardous material.
6.4. Comprehensive guide to steam sterilization and sterility assurance in healthcare facilities Amendment 4. ANSI/AAMI ST79:2010/A4:2013.

7.0 APPROVAL:

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	Mr. Muqrin Mojeb Al Otaiby	Head of CSSD	Muqrin Mojeb Al Otaibi Head of CSSD	10 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No: 13-R-M-0046094	12 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Dr. Khalid Al Mutairi QM Director	17 MAR 2019
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8.0 POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC33-1	April 1, 2012
Replaced by	IDP-IC-004(2)	April 1, 2014
Deleted	IDP-IC-004(2)	April 1, 2016
Replaced by New Policy and Procedure	IDP-IC-004(4)	April 1, 2019

وزارة الصحة
Ministry of Health

KINGDOM OF SAUDI ARABIA
MINISTRY OF HEALTH
GENERAL DIRECTORATE OF HEALTH AFFAIRS, RIYADH
AFIF GENERAL HOSPITAL
Infection Prevention & Control Department

RECALL LIST

Recall Items Post Sterilization Failure from Receiver Department

Department : _____ **Date:** _____

Autoclave Name/ Cleaner Machine	Number	Type of Cycle	Charge Sterilization #	Date	Time

Type of Failure _____
_____

Sets/Items	No. of Items	Department	Collection		Items send back before used or after used	
			Date	Time	Before	After
Name of operator of CSSD				Name of Dept. in charge receiver		
Date/time/Signature				Date/time/signature		

Please send back all items listed below to the sterilization center for re-sterilization.

INTERDEPARTMENTAL POLICY AND PROCEDURE (IDP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
KITCHEN MANUALS			IDP-IC-005(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	IDP-IC-005(3)	11
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL DEPARTMENTS AND EMPLOYEES OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1 To provide food services with infection control and environmental health standards and guidelines to prevent food borne.

1.2 To ensure a clean and hygienic dietary department on all aspects of food service.

2.0 DEFINITION (S):

2.1 ***Kitchen***: an area of the hospital that manage food preparation, food serving and food storage.

3.0 POLICY STATEMENT(S):

3.1 The kitchen staff shall understand infection control activities which may influence the risk of transmission of food borne pathogens to prevent exposure of patients and staff member to food borne infection.

3.2 The department must comply with local health department regulations for proper storage, handling and disposal of garbage.

3.3 The dietary department shall maintain clean working storage areas and equipment, environment.

3.4 The dietary department shall do periodic screening of food handlers every 6 months and after coming from vacation.

3.5 Personnel with overt silent infection shall be excluded from work (sores, cuts, boils).

3.6 Unauthorized personnel are not allowed to enter the food serving area.

3.7 All food services and contractors must comply with the applicable IP&C Environmental Health and Occupational Health & Safety (EHOHS) standards and regulation. Routine food hygiene Inspection shall be conducted regularly by EHOHS without any notice. Food services and Contractor staff cooperate with EHOHS inspectors and immediately correct any related infraction in ensuring safe food quality and services.

4.0 EQUIPMENTS /MATERIALS /FORMS:

4.1 Kitchen utensils – chopping board, knives

4.2 Food carts

4.3 Hand hygiene facilities

4.4 Personal protective Equipments (PPE)

4.5 Kitchen equipments- freezers, refrigerators

5.0 ROLES AND RESPONSIBILITIES:

5.1. Food Service Manager

5.1.1. Food premises must be kept clean and maintained in good repair and condition.

5.1.2. Adequate number of washbasins and flush lavatories must be available.

5.1.3. Materials for cleaning hands and for hygienic drying must be provided.

5.1.4. Hygiene requirements for food transportation.

5.1.5. Provide Medical Certificate

5.1.5.1. Pre-employment and routine (annual) medical examination of food handlers

5.1.5.2. Annual medical certification is a legal requirement for food workers.

5.1.5.3. Stool (analysis for ova and parasite), Stool culture (for salmonella, shigella and cholera).

5.1.5.4. Chest X-ray to rule out Pulmonary TB.

5.2. Food handlers:

5.2.1. Personal hygiene (hand washing, clean and, protective clothing, personal cleanliness).

5.2.2. Food handlers should have ongoing training and instruction in the importance of personal hygiene and hand washing.

5.2.3. Caps, gloves, mask and gown should not be worn along the corridors.

5.2.4. Locate convenient, adequate and well-maintained hand washing facilities in all areas of food premises including kitchen, staff changing and toilet areas.

5.2.5. Convenient, adequate and properly maintained toilet facilities are essential.

5.2.6. Illness reporting and work restriction if a possible source of infection relevant to food safety.

5.2.7. Hygienic maintenance of equipment and general hygiene measure.

5.2.8. Don't eat, drink, or smoke while preparing and handling food.

5.2.9. All food handlers must have certified education before starting work and annual repetitions.

5.2.10. In addition to the hospital pre-employment screening requirements, food handlers complete a screening process involving the following:

i. Clinical examination (evaluation of the chest and abdomen as well as possible skin diseases and other communicable diseases).
ii. Chest X-ray to rule out pulmonary tuberculosis.
iii. Stool analysis for ova and parasites
iv. Stool culture for *Salmonella*, *Shigella* and *Vibrio cholerae*.
v. Vaccination for meningococcal disease, with a booster every 5 years.
vi. Vaccination for typhoid fever, with a booster every 5 years.
vii. Receive a valid medical examination certificate indicating that they are free from infectious diseases and fit to work as a food handler; this certificate must be issued by the Infection Prevention & Control Department and will be valid for one-year, renewable yearly after an assessment of the food handler.
viii. Repeat clinical examination every six months and when employee leaves on vacation to areas at high risk for communicable diseases.

Follow proper and frequent hand hygiene and personal hygiene practices

ix. Fingernails: Keep fingernails trimmed and filed; do not apply finger nail polish or artificial fingernails.
x. Jewelry: Do not wear jewelry on the arms and hands while preparing food to allow for proper hand hygiene.

xi. Wear and maintain proper clean attire during food handling (clean uniform, apron, hair and beard restraint, clean gloves when needed). Do not wear street clothes in food service areas.

xii. Do not go to the washroom with masks or gloves on Clinical examination (evaluation of the chest and abdomen as well as possible skin diseases and other communicable diseases).

5.2.11. All heavy utensils will be sanitized by the application of chemicals as the effective germicide agent.

5.2.12. Keeping heavy utensils in clean ready state in the Kitchen.

5.2.13. To define effective cleaning techniques that meet defined Client and Contractor sanitation standards.

5.2.14. All pots and pans are initially washed in the "pot sink" using a three-sink methodology i.e. soak, wash, and rinse and sanitize.

5.2.15. Small equipment, such as food chopper blades, may be washed at the point of use and not taken to the pot sink.

5.2.16. All utensils will be finally cleaned and sanitized by running them through the dishwashing machine or the pot wash machine.

5.2.17. All cleaned items will be stored in a protected, hygienic manner i.e. bottoms up and on shelving with at least 6" clearance (ground and ceiling).

5.2.18. Ice machine:

5.2.18.1. Use ice-dispensing machines (preferably).

5.2.18.2. Use potable water for ice making.

5.2.18.3. Clean and disinfect ice machines routinely according to a written procedure.

5.2.18.4. Use a clean scoop to dispense ice. Do not handle ice with bare hands.

6.0 PROCEDURE:

6.1. Proper storage of food to avoid contamination.

6.1.1. Store non-perishable food in clean, dry, properly ventilated and inspect periodically for any signs of spoilage or expiration date.

6.1.2. Store food in designated areas. Do not store in housekeeping and dishwashing areas or near any sources of potential contamination.

6.1.3. Store food at least 6 inches above floor level below the ceiling and away from walls to facilitate cleaning and reduce refuge of pests.

6.1.3.1. No food be kept on the floor

6.1.3.2. No big boxes allowed in the storage room to prevent hibernation of pests.

6.1.4. Keep storage areas and food carts clean.

6.1.5. Rotate food stocks to avoid use of outdated foods.

6.1.6. Store food products in a way to avoid cross contamination between cooked and raw foods, washed and non-washed food.

6.1.7. Store food in clean wrappers or containers and labeled at proper temperature for refrigeration:

6.1.7.1. Freezing storage – less than 18°C

6.1.7.2. Refrigeration – 2°C to 7°C

6.1.7.3. Hot storage – above 60°C

6.1.8. Monitor temperature of refrigerator and freezers daily and maintain daily log.

6.1.9. Maintain housekeeping and hygienic condition.

6.2. Food Preparation

6.2.1. Instruct personnel and supervise personal hygiene and food safety during food preparation.

6.2.2. Kitchen staff ensures that all equipment for food preparation and cooking are clean.

6.2.3. Wash vegetables and fruits properly.

6.2.4. Strictly adhere to hand hygiene procedures and techniques:

6.2.4.1. Wash hands before starting to prepare things for cooking.

6.2.4.2. Wash hands after using the toilet.

6.2.4.3. Install hand washing and drying facilities conveniently located throughout the department.

6.2.5. Kitchen staff wears aprons, hairnets or caps and plastic gloves to minimize touch contamination.

6.2.6. Use separate cutting boards for meat, poultry, fish, raw fruits, vegetables and cooked foods unless boards are non-absorbent and can be clean and sanitize adequately between uses.

6.2.7. Maintain cleanliness in the area while preparing food.

6.2.8. Check water temperatures in dishwashing machines prior to use to ensure that it is sufficient to clean and sanitize, (dishwasher temp. = 82°C (180°F).

6.2.9. Keep meat products at refrigerator temperature (4-6 °C or 39-43°F) to reduce microbial growth. (Avoid thawing and refreezing of meat products).

6.2.10. Reheat rapidly to 74°C / 165°F or higher before being served potentially hazardous foods that are cooked and refrigerated.

6.3. Food Transport

6.3.1. Use clean mobile food carts (warmers) when serving food to different areas.

6.3.2. Do not leave food carts containing food and avoid spillage of food along the hallway.

6.3.3. Use the clean lift to transport food to the wards.

Transport food to different areas while protected in temperature-controlled carts.

6.3.4. Establish safe times for food items to be stored in inpatient care areas.

6.3.5. Protect food on display from customer contamination by the use of easily cleanable counter protector devices.

6.3.6. Maintain food on display at the proper temperature, whether hot or cold.

6.4. Holding and Food Serving

6.4.1. Wash hands before touching food for serving.

6.4.2. Wear personal protective equipment such as hair net or head caps, plastic apron and plastic gloves.

6.4.3. Water (70°C) or Use clean ladles and tongs to scoop foods.

6.4.4. Avoid touching unclean foods around the serving area to avoid food contamination.

6.4.5. Keep clean mobile food carriers (warmers) for serving food to ward patients.

6.4.6. Avoid thawing and refreezing of food products.

6.4.7. Avoid pre0cooking and holding meats for final cooking.

6.4.8. Chilling cooked perishable leftovers to an internal temperature of 5°C / 41°F or less to 7°C / 45°F or less within 2 to 4 hours of preparation.

6.4.9. Shallow containers 2 to 4 inches deep should be used for cooling hot foods.

6.4.10. Transport food to patient units in temperature-controlled carts to keep food hot or cold.

6.4.11. Protect food from airborne contamination by using sneeze guards at salad bars and serving line and distribute food to patients with a minimum of handling by personnel.

6.5. Water Supply

6.5.1. Use clean, potable and safe water and should be tested routinely for its quality and portability.

6.6. Washing and cleaning:

6.6.1. Establish comprehensive cleaning schedules to include different areas, equipment, fixtures and facility structure (walls, floors).

6.6.2. Monitor dishwasher washing and rinsing temperature to achieve proper sanitation and washing of food utensils.

6.6.3. After manual washing, sanitize all utensils and equipment either by hot water (70°C) or the use of sanitizer (sodium hypochlorite) at appropriate concentrations and exposure time.

6.6.4. Small equipment such as food chopper blades maybe washed at the point of use.

6.6.5. Cutting boards are cleaned with detergent, rinsed and kept dry.

6.6.6. All pots and pans are soaked, washed and rinsed.

6.6.7. Keep washing area clean and dry after washing procedure is done.

Wash all working surfaces: thoroughly rinse and sanitize them after each use with the proper sanitizer, dilution, and exposure time and water temperature.

6.7. Kitchen (food) sanitation:

6.7.1. Purchase food from reputable dealers.

6.7.2. Purchase food which have been inspected and approved.

6.7.3. Check packaging for presence of broken, opened seal and damaged containers.

6.7.4. Cook food thoroughly by the use of correct cooking temperatures.

6.7.5. Thaw meat products at refrigerator temperature.

6.7.6. Avoid thawing and refreezing meat products.

6.7.7. Periodic checking of all gods for expiry dates.

6.7.8. Periodic rotation of goods.

6.7.9. Keep kitchen free from liquid spills and moist areas.

6.7.10. Garbage disposal:

6.7.10.1. Do not accumulate garbage in order not to invite rodents and other pests.

6.7.10.2. Dispose of garbage in leak proof containers easily cleaned, pest proof container with tight fitting lids.

6.7.10.3. Store all garbage containers either outdoors or above a smooth surface of non-absorbent material.\

6.7.10.4. Wash containers and sanitize routinely

6.7.10.5. Store garbage in leak- and pest-proof containers with tight-fitting covers.

6.7.11. Pest control:

6.7.11.1. Report immediately any sightings of pests to the pest control department.

6.7.11.2. Follow appropriate pest control measures to prevent the access and extermination of pests (sanitation, screens, closure of cracks and holes).

6.7.11.3. To prevent the access of pests to food areas and allow for extermination, if necessary, follow appropriate pest control measures (e.g., sanitation, screens, closure of cracks and holes).

6.7.12. Maintenance

6.7.12.1. Identify and follow a cleaning and sanitation procedure for all equipment used in food services.

6.8. Food borne outbreak

6.8.1. During a food borne outbreak, the food and nutrition services department is responsible to save suspected foods for culturing by an appropriate laboratory.

6.8.2. Document departmental conditions at the time of preparation of the suspected food, if possible.

6.8.3. Notify infection control/employee health of any reports of gastrointestinal complaints. Provide a list of foods served during the suspected interval.

6.8.4. Implement and supervise control measures to prevent further occurrence of the illness.

6.9. Specific environmental concerns for infection control in the food and nutrition services department are the following:

6.9.1. Discourage floor drains that permit contamination by sewage backflow.

6.9.2. Avoid placement of pipes above areas used for storage, preparation or service of food.

6.9.3. Protect the water supply from contamination by avoiding cross connections or any physical links through which contaminants from drains, sewers or waste pipes can enter a potable water supply.

6.9.4. Avoid backflow or the flow of contaminant from unapproved sources into potable water distributing systems.

6.9.5. Label properly and stored separately from food storage or preparation area poisonous or toxic materials such as insecticide, detergents, disinfectants or polishes.

6.9.6. Control lighting, ventilation and humidity to prevent the condensation of moisture and growth of molds.

6.10. Vending Machine Sanitation

6.10.1. Located in an area that provides space around and under equipment to facilitate cleaning and maintenance.

6.10.2. Store food in the machine and packed in clean, protective containers, handled, transported and vended in a sanitary manner; packed in single-service containers with expiration dates and refrigerated or heated and held at correct temperatures.

6.10.3. Once food is heated, appropriate temperature must be maintained until food is served or discarded:

6.10.3.1. 7.2°C / 45°F or below for cold foods

6.10.3.2. 60°C / 140°F or above for hot foods.

6.10.4. Thermostatic controls shall provide adequate refrigeration or heating units or both; ensure the maintenance of applicable temperatures at all times, and prevent the machine from vending the food until serviced done by the operator in the event of temperature failure.

6.10.5. Vending equipment cleaning and sanitizing must include daily cleaning and sanitizing of all multi use containers or vending machine parts that come into contact with potentially hazardous food.

6.10.6. The vending machine attendant must conform to hygienic practices while engaged in handling food, food contact surfaces, utensils or equipment.

6.10.7. Tobacco products in any form not be used while handling food.

6.11. Report the following conditions to Infection Prevention and Control Department:

6.11.1. Restrict from work food handlers with boils, infected wounds or active respiratory infections if there is a likelihood of contaminating food or food contact surfaces.

6.11.2. Restrict food handlers with the following condition:

6.11.2.1. Diarrhea

6.11.2.2. Jaundice

6.11.2.3. Vomiting

6.11.2.4. Sore throat with fever

6.11.2.5. Fever

6.11.2.6. Infected skin lesions (e.g. boil, infected wound) or cuts on exposed body parts (hand, arm, face, neck or scalp).

6.11.2.7. Purulent discharges from the eyes, ears, nose or mouth / gums

6.11.2.8. Gastrointestinal illness while on holidays, especially overseas, should also be reported on return.

6.12. Circumstances where food handlers are required to provide stool samples:

6.12.1. At start of employment and after interruption of employment of greater than six months.

6.12.2. If food contaminated and transmission by food handler is suspected. After sick leave for gastrointestinal or respiratory illness.

6.12.3. Samples are requested if disease or carriage suspected or if evidence found that an outbreak source is contamination from staff.

6.12.4. If employee have traveled abroad.

7.0 RELATED POLICY / CROSS REFERENCES:

7.1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 109:
Nutritional services. In APIC Text of infection control and epidemiology (4th ed.).
7.2. Environmental Health Manual, Infection Prevention and Control Department, KAMC 2016.

8.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	05 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA V. LIÑAN NURSING DIRECTOR	06 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	13 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR	11 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Dr. Khaled B. AlMutairi	19 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		24 MAR 2019

9.0 POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC 35-1	April 1, 2012
Replaced by	IDP-IC-005(2)	April 1, 2014
Deleted	IDP-IC-005(3)	April 1, 2016
Replaced by New Policy and Procedure	IDP-IC-005(4)	April 1, 2019

وزارة الصحة
Ministry of Health

AFIF GENERAL HOSPITAL
RIYADH REGION, K.S.A
INFECTION CONTROL DEPARTMENT

aNo.	Environmental Checklist for Kitchen	YES	NO	Remarks
1.	Proper attire (cap for male, head cover for female, clean uniform) in the dietary department.			
2.	Proper hand washing, well trimmed nails before handling and preparation of foods?			
3.	Gloves are available in kitchen.			
4.	Soap stored at proper temperature.			
5.	Food stored at proper temperature.			
6.	Food storage areas are kept clean.			
7.	Food containers are properly labeled and expiry dates are noted.			
8.	Food transported to wards are properly covered and served on time.			
9.	Food cart/trolleys coming from patient care areas are properly cleaned.			
10.	Correct cooking temperature is used for meat and poultry products to kill or reduce the number of microorganisms.			
11.	Fruits and vegetables are washed and disinfected thoroughly.			
12.	Refrigerator temperatures are daily checked and recorded in log sheet.			
13.	Kitchen water and food items are monitored regularly.			
14.	All working surfaces, utensils, trays and equipments are cleaned thoroughly and sanitized after each use.			
15.	Garage are collected and disposed or promptly in a proper garbage container with cover.			
16.	Files, rodents, cockroaches, present in the kitchen?			
17.	Floor mops are washed with disinfectant and dried thoroughly after use.			
18.	Cleaning schedule is available in the kitchen.			
19.	Kitchen environment is clean without areas of stagnant water on floor.			
20.	Is there a monitoring procedure of employee health for all kitchen staff prior to start of work.			

Checked by: _____

INTERDEPARTMENTAL POLICY AND PROCEDURE (IDP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION LAUNDRY SERVICES			POLICYNUMBER &VERSION IDP-IC-006(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	IDP-IC-006(3)	6
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL PERSONNEL UNDER LAUNDRY SERVICES AND ALL HEALTHCARE WORKERS WHO MAYBE IN CONTACT WITH HOSPITAL LINENS.	

1.0 PURPOSE:

1.1. To describe the responsibilities of healthcare workers about the correct handling and processing of dirty/soiled laundry to minimize infection risk throughout the department.

1.2. To provide clean linen supplies to the health care facilities.

2.0 DEFINITION (S):

2.1. Contaminated laundry – are laundries that have been soiled with blood or other potentially infectious materials or may contain sharps.

2.2. To describe infection control practices for the hospital laundry to protect workers from exposure to potentially infectious materials during the collection, handling and sorting of soiled linen, which may be contaminated with blood and body fluids or other infectious material. Also, to describe infection control standards for the laundering process to restore soiled linen to a usable condition.

3.0 POLICY STATEMENT(S):

3.1. Laundry personnel and hospital staff shall understand measures to reduce microbial contamination of hospital environment.

3.2. Laundered linen shall be autoclaved before being supplied to the operating rooms/theaters and high risks areas e.g. burn units and transplant units.

4.0 EQUIPMENTS /MATERIALS /FORMS:

4.1. Laundry cart for clean linens / cart for dirty linen.

4.2. Water soluble bag

4.3. Utility gloves

4.4. Attachment 1: laundry Department Checklist

5.0 ROLES AND RESPONSIBILITIES:

5.1. Managers

Ensure that all staff has had instruction/education on the safe management of linen

5.2. Infection Control Staff

Provide education for staff and management of this policy is required

6.0. PROCEDURE:

6.1 PERSONAL PROTECTIVE EQUIPMENT (PPE) AND HAND HYGIENE:

6.1. All staff must be trained in the collection, transport, sorting and washing of soiled linen using the appropriate infection control measures, such as hand hygiene, wearing PPE and adhering to standard precautions. Refer to Hand Hygiene policy.
6.2. Staff must be educated in the use of PPE. Refer to Standard Precautions policy.
6.2.1. When and what is needed.
6.2.2. How to put on correctly.
6.2.3. Where to dispose of used PPE.
6.3 PPE requirements differ depending on the assigned area of the laundry.

6.2 COLLECTING CONTAMINATED TEXTILE/LINENS:

6.2.1. Nursing: The nurse should wear appropriate personal protective equipment when handling used or contaminated linen.
6.2.1.1. Contaminated linen should be bagged at the site of generation in a manner that minimizes agitation and prevents contamination of the environment and personnel.
I. Do not shake contaminated linen when removing it from the bed.
ii. Place used linen in a laundry bag at the point of use.
iii. Do not place on chairs or other furniture.
6.2.1.2. Collect soiled linen in such a fashion as to keep the heavily soiled portion contained in the center by folding or rolling the soiled spot into the center. This action will reduce the risk of contamination and prevent leakage from soaking through.
I. When available, bag soluble in hot water can be used for heavily soiled linen.
ii. Roll linen as mentioned above and place it in the clear, water-soluble bag, and then into the laundry bags.
6.2.1.3. Care should be taken before placing soiled linen in a laundry bag to ensure that all nontextile items, including instruments, needles, or plastic single-use under pads, are removed.
These items can cause extensive damage laundry equipment.
I. Items of this nature present the greatest risk to the HCW in acquiring blood-borne infection.
ii. Ensure that the patient's personal items (e.g., dentures, eyeglasses, and hearing aids)

are not left in the linen.

6.2.1.4. Laundry bags should not be filled more than ¾ full. Once full, tie off soiled linen bags in the dirty utility room or a designated area for pickup by laundry staff. Linen bags must not be placed on the floor; use a bin or rack to keep the bags 8 to 10 inches off the floor.

6.2.1.5. Storage of soiled linens collected from the different areas of the hospital waiting for transport to the laundry service should be kept in an area that is not accessible to the public.

6.2.1.6. Linen from isolation rooms is considered regular soiled linen.

6.2.2. Laundry staff:

6.2.2.1. Observe Standard Precautions while moving, loading and unloading soiled linens.

6.2.2.2. Linen should not be sorted or pre-rinsed in-patient care areas.

6.2.2.3. Care should be taken when removing laundry bags from these areas. Do not overfill the carts.

6.2.2.4. Do not hold bags close to the body; this step will help prevent the possibility of sharps injury from forgotten items in the linen.

6.2.2.5. If Standard Precautions are followed when handling these soiled linens, the bags do not need to be color-coded or labeled.

6.2.2.6. The laundry provider must maintain functional separation of clean from soiled linens in carts and/or vehicles at all times during the collection and transportation of soiled linens.

6.3 SORTING SOILED LINEN:

6.3.1. All personnel involved in the sorting and washing of contaminated healthcare linen should:

6.3.1.1. Be appropriately trained.

6.3.1.2. Have adequate access to hand hygiene facilities.

6.3.1.3. Use PPE (overalls, mask, head cover, heavy duty gloves, and boots).

6.3.2. The bagged linen should be delivered to the 'soiled' area of the laundry.

6.3.3. It is important to be alert for sharp objects while sorting linen. If found, sharps must be disposed of appropriately. Refer to Management of Infectious Waste policy.

6.4 LAUNDERING PROCESS (WASHING, RINSING, DRYING):

The laundering process is designed to remove organic soil and render the linen clean. The correct amount of each chemical (at an adequate dilution), the mechanical action of the equipment, the water flow, the water temperature, the timing (cycles), and drying must be optimized as part of the process.

6.4.1. High temperature: A temperature of at least 71ºC (160ºF) for a minimum of 25 minutes is normally recommended for the hot water wash cycle.

6.4.2. Low temperature: A lower temperature of 22ºC-25ºC (71ºF-77ºF) can satisfactorily reduce microbial contamination in the washer.

6.4.3. The washing cycles (one for bleach wash), series of rinses, and the last rinse will neutralize any residual chemicals.

6.4.4. The amount of residual chlorine (bleach) should be between 50 and 150 ppm and must be monitored and controlled.

6.5 PACKAGING AND STORING:

6.5.1. Maintain the linens in a clean state for delivery to the customer.

6.5.2. Wrapped linens into fluid-resistant bundles or place bundled but unwrapped linens into fluid-resistant covered carts or hampers.

6.5.3. Keep unwrapped linens into carts or hampers covered at all times. If the cart does not have a solid bottom, it must be lined with heavy plastic or impervious paper before placing clean linens

inside.

6.5.4. Store bundled and wrapped linens in open racks in the laundry provided the integrity of the bundled and wrapped linens is not compromised.

6.5.5. You may store unwrapped clean linens in designated rooms, where only the appropriate personnel have access to it. Keep the door close at all times.

6.5.6. Reprocess any linens that become soiled during the packaging and storage

6.6 DELIVERY OF CLEAN LINENS:

6.6.1. Maintain functional separation of clean from soiled linens during transportation by bagging soiled linens in fluid-resistant containers.

6.6.2. Do not store clean and soiled linens in the same container.

6.6.3. Clean and disinfect properly carts, containers, covers, and liners used to collect or transport soiled linens after the cart is emptied and before any next use.

6.6.4. Clean the interior of the transport carts or containers on a regular basis or when visibly soiled.

6.7 NEEDLE/SHARPS INJURIES:

6.7.1. Instruct laundry employees to report any sharps injury occurring when handling linen as well as any improperly disposed sharps or needles.

6.7.2. Provide a sharps container in the soiled linen area to dispose of any sharps found in the linen.

6.8 PHYSICAL FACILITY:

6.8.1. **Separation of clean and soiled linen**:

6.8.1.1. Separate the areas for sorting and processing soiled linens from the areas for ironing, Folding, and storing clean linen.

6.8.1.2. Separate the abovementioned areas with physical barriers and ensure appropriate ventilation.

6.8.2. Ventilation: Maintain areas receiving soiled linen at negative air pressure relative to clean areas or ensure positive air flow from the clean linen area to the soiled linen area.

6.8.3. Hand hygiene facilities: The laundry areas must have hand hygiene facilities (soap, water, paper towels, or alcohol hand rub) and PPE available for workers.

7.0. RELATED POLICY / CROSS REFERENCES:

7.1. Chapter 111: Laundry, patient linens, textiles. In APIC Text of infection control and Epidemiology 2014 (4th ed.).

7.2. Center for Disease Control and Prevention (CDC). (2001). Guidelines for environmental infection control on healthcare facilities, pp. 88-92.

8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LINAN NURSING DIRECTOR S.C.# 06-NN-0036	06 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC-MD-13-R-M-0046094	04 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Mr. Khalid B. Al Mutairi QM Director	19 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		24 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC 36-1	April 1, 2012
Replaced by	IDP-IC-006(2)	April 1, 2014
Deleted	IDP-IC-006(3)	April 1, 2016
Replaced by New Policy and Procedure	IDP-IC-006(4)	April 1, 2019

Attachment 1: Laundry Department Checklist

وزارة الصحة
Ministry of Health

AFIF GENERAL HOSPITAL
Infection Control Department
LAUNDRY DEPARTMENT

Month/Year: _____

SI No.		YES	NO	Remarks
1.	Clean linen Is transported, handled and stored in a way that keeps it protected from contamination and dust.			
2.	There is functional separation of clean and used linen during storage and transport.			
3.	Linen carts used for clean and used linen are clearly identified.			
4.	Loose linen is not put down in laundry chute.			
5.	Linen form isolation room handled as little as possible and with minimum agitation.			
6.	Appropriate barriers (gloves, gown and masks) are used while handling linen.			
7.	Hand hygiene facilities are available.			
8.	Proper wash/rinse/dryer temperatures are maintained for regular linens.			
9.	All laundry appliances (washers/dryers, carts) are cleaned daily with germicidal solution.			
10.	Supplies for clothing/equipment cleaning are approved by Infection Control Committee.			
11.	Supplies for clothing/equipment cleaning are approved by Infection Control Committee.			
12.	Proper medical waste management is available in laundry. (Yellow bin/sharp container).			
13.	Spill kit is available in laundry and all personnel are aware of spillage management.			
14.	Good personal hygiene is practiced by the employees.			
15.	Clean linen is transported in covered containers.			

Checked by:_____

Date: _____

INTERDEPARTMENTAL POLICY AND PROCEDURE (IDP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
INFECTION CONTROL - HEMODIALYSIS			IDP-IC-007(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	IDP-IC-007(3)	31
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS INVOLVED IN THE MANAGEMENT AND CARE OF DIALYSIS PATIENTS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To provide a workable guide to hospital staff caring for the dialysis patients.

1.2. To protect patient and staff from unnecessary exposure to a potentially contaminated environment and to prevent cross and secondary infections. These include recommendations for the management of equipment, water supply, screening and monitoring of patients and HCWs and other related activities.

2.0 DEFINITION (S):

Dialysis or renal replacement therapy is a procedure that replaces the normal kidney functions in removing metabolic waste products by diffusion through artificial (hemodialyzer or a natural (peritoneum) semipermeable membrane.

3.0 POLICY STATEMENT(S):

To provide the guidelines needed for the prevention of infection transmission at dialysis settings being a high-risk area for infection transmissions in health care facilities. These guidelines include:

3.1 infection control principles for all patients plus special precautions for hepatitis B virus-positive patients and patients with acute respiratory illness.

3.2 Vaccinations recommendations for staff and patients at dialysis setting.

3.3 Selection and maintenance of vascular lines.

3.4 Principles of water treatment at dialysis units

4. **KEY TERMS:**

4.1 INFECTION RISK AT DIALYSIS SETTING: Transmission of infection in hemodialysis unit occurs mainly through contact transmission by either:

4.1.1 Direct from patient to patient.

4.1.2 indirect via contaminated devices, equipment, and supplies, environmental surfaces, or hands of Personnel.

4.2 PATIENT RISK FACTORS:

4.2.1 Most patients undergoing dialysis are already at risk for certain types of infections resulting from underlying diseases or conditions (e.g., diabetes, hypertension, cardiovascular disease, immunosuppressive therapy, and critical illnesses).

4.2.2 Dialysis also increases the patient's risk of infection because of direct access into normally sterile areas, the circulatory system or peritoneal cavity.

4.2.3 ln addition to infections, dialysis patients may be at risk for certain adverse reactions that, although not infectious in origin, may be difficult to distinguish from infections. These include pyrogenic, allergic, and chemical reactions, such as fluoride intoxication, and chloramine exposure that may be as life threatening as infections.

5. PRINCIPLES:

5.1 infection Control Practices for Hemodialysis Units: infection Control Precautions for All Patients.' transmission by contact can be prevented by effective hand hygiene, glove use, and disinfection of environmental surfaces.

5.1.1 <u>Hand Hygiene</u>.

5.1.1.1 Adequate number of easily accessible hand washing sinks should be available (one for every 2-4 chair/beds).

5.I.1.2 At least, an alcohol hand rub device (wall-mounted dispenser or tabletop pump bottle) should be available for every patient's chair/bed.

Table 1: - Opportunities of hand hygiene in the dialysis unit

Hand hygiene opportunity	Specific examples
1. Before touching a patient	1.Before entering the station to provide care to a patient. 2.Before contact with vascular access site. 3.Before adjusting or removing cannulas.
2. Before aseptic procedures	1.Before cannulation or accessing catheter. 2.Before performing catheter site care. 3.Before parenteral medication preparation. 4.Before administering infusions or lV medications.
3. Following body fluid exposure risk	L. Following exposure to any blood or body fluids. 2.Following contact with other contaminated fluids (e.g., spent dialysate). 3.After handling used dialyzers, blood tubing, or priming buckets. 4.After performing wound care or dressing changes.
4. After touching a patient	1.When leaving the station after performing patient care. 2. After removing gloves.
5.After touching patient surroundings	1.When leaving the station after touching dialysis machine or other items within the dialysis station. 2. After removing gloves 3.After using chair side computers for charting.

5.1.2 Personal protective equipment:

5.1.2.1 During the process of hemodialysis, exposure to blood and potentially contaminated items are routinely anticipated; gloves are needed whenever caring for a patient or touching the patient's equipment.

5.1.2.2 Staff members should wear fluid resistant gowns, face shields, eyewear, and masks to protect themselves and prevent soiling of clothing when doing procedures which may lead to spurting or spattering of blood e.g., during initiation and termination of dialysis session, insertion of dialysis catheter, manipulation of patient's access at any time and cleaning of the dialysis station.

5.1.3 Aseptic Technique:

5.1.3.L Restrict the use of common supplies, medications, instruments, and medication trays and avoid the use of a common medication cart'

5.1.3.2 Unused supplies or medications (e.g., syringes, alcohol swabs, adhesive tape) taken to the patient's station should not be used on other patients or returned to a common clean area.

5.1.3.3 Prepare medications in an area or a room separated from the patient treatment area and designated only for medications with a separate medication room for HBV isolated patients.

5.1.3.4 intravenous medication vials labeled for the single use must not be punctured more than once only. Once a needle has entered a single use vial, the sterility of the product can no longer be guaranteed.

5.1.3.5 Staff members should not eat, drink, or smoke in the dialysis treatment area.

5.1.4 Cleaning and Disinfection:

5.1.4.1. Establish written rules for cleaning and disinfecting surfaces and equipment in the dialysis unit, including careful mechanical cleaning before any disinfection process.

5.1.4.2 After each patient treatment session, all surfaces at the dialysis station should be cleaned with bleach or comparable solution.

5.1.4.2.1 Outside of the machine.

5.1.4.2.2 Bed (or chair) and over-bed table.

5.1.4.2.3 Computer /Counters.

5.7.4.2.4 BP cuff and tubing.

5.1.4.2.5 TV control/ call light

5.I.4.3 Pay special attention to central panels on the dialysis machine and other surfaces that are frequently touched and potentially contaminated with the patient's blood.

5.1.4.4 Units should confirm with the manufacturer whether the use of chlorine-based disinfectant is compatible with their machines; if not, units should follow the manufacturer's recommendations regarding disinfection of surfaces between patients.

5.1.4.5 Process of internal cleaning and disinfection of dialysis machines in-between patients should be performed according to manufacturer's instructions.

5.1.5 Cleaning of blood spills:

Trained staff should deal with spills of blood and body fluids using the standard protocol.

5.1.6 Waste and Sharps Disposal:

Waste generated by the hemodialysis unit might be contaminated with blood and should be considered infectious and handled accordingly.

5.1.6.1 All disposable items (e.g., dialyzers and tubing) should be placed in bags thick enough to prevent leakage.

5.1.6.2 Needles and sharps should be discarded immediately after use into a leak proof puncture resistant biohazardous sharp container labeled with the name of the unit.

5.1.7 Applications:

These measures should be carried out routinely for all patients in the hemodialysis setting.

5.1.7.1 For patients at increased risk for transmission of pathogenic bacteria, including antimicrobial-resistant strains (e.g., those infected or colonized with MRSA or VRE), additional precautions (i.e., contact precautions) are also required.

5.1.7.2 Contact precautions include:

5.1.7.2.1 Placing the patient in a single room or with another patient infected or colonized with the same organism (in consultation with the lCPs).

5.1.7.2.2 Using gloves whenever entering the patient's room.

5.1.7.2.3 Using a gown when accessing the patient's room for potential contact with environmental surfaces, or items in the patient's room.

5.1.7.2.4 Additional practices are required to prevent HBV transmission because of the high risk of HBV and its capacity to persist on environmental surfaces.

5.2 Management of patients with Acute Respiratory! illness (ARI):

To prevent the transmission of respiratory infections among hemodialysis patients, including MERS-CoV and influenza, the following infection control measures should be incorporated into infection control practices and implemented:

5.2.1. Triage for patients with Acute Respiratory! illness (ARI):

5.2.1.1 Visual triage should be used for early identification of all patients with ARI in the hemodialysis unit.

5.2.1.2 Visual triage station should be placed at the entry point of the healthcare facility (i.e. hemodialysis unit entrance) and attended by a trained nurse or nurse assistant.

5.2.1.3 All patients attending hemodialysis units (except those with life-threatening conditions) must be triaged at the entrance using predefined scoring (See (Appendix A) derived from MERS-CoV Guidelines for Healthcare Professionals version 5.0, April 2018).

5.2.1.4 Identified patients with ARI should be asked to perform hand hygiene and wear a surgical mask.

5.2.1.5 ARI patients should be segregated, examined and evaluated immediately in a single room separate from other patients.

5.2.1.6 Dedicate a waiting area(s) for ARI patients linked to examination room with spatial separation of at least 1.2 meter between each ARI patient and others.

5.2.1.7 Post visual alerts in appropriate languages (e.9., respiratory & cough etiquette signs) at the entrance of the facility and waiting areas. Messages in the visual alerts include the following:

5.2.1.7.1 Cover your mouth and nose with a tissue when coughing or sneezing.

5.2.1.7.2 Dispose of the tissue in the nearest waste receptacle immediately after use.

4.2.1.7.3 Perform hand hygiene (e.g., hand washing with non-antimicrobial soap and water, alcohol-based hand sanitizer, or antiseptic hand wash) after having contact with respiratory secretions and contaminated objects or materials.

5.2.2 Prevention of overcrowding in hemodialysis patients care areas:

5.2.2.1. Space requirements for patients 'treatment area:

5.2.2.1.1 **Area:** lndividual patient area should have a minimum floor area of 80 feet (7.43 m2).

5.2.2.1.2 **Clearance:** The distance between patients' beds/ chairs in hemodialysis units should be > 4 feet (1.2 meters) to reduce the risk of transmission between patients and to staff.

5.2.3 lsolation of hemodialysis patient with suspected, or confirmed MERS-CoV infection:

5.2.3.1 ln hemodialysis facilities without availability of Airborne infection lsolation Room - AllR(s) and units associated with other healthcare facilities that can provide proper care for suspected, or confirmed cases of MERS-CoV, hemodialysis patient with suspected, or confirmed MERS-CoV infection should be transferred to get the dialysis session(s) in appropriate isolation room:

5.2.3.1.1 Standard, Contact, and Droplet precautions are recommended for patients who are NOT CRITICAIIY lLL.

5.2.3.I.2 Standard, Contact, and Airborne precautions in Airborne infection lsolation Rooms - AllR are recommended for CRITICAIIY lLL patients, due to the high likelihood of requiring aerosol-generating procedures (AGPs).

5.2.3.2 ln hemodialysis facilities that cannot transfer patients with suspected, or confirmed MERS-CoV infection to other appropriate healthcare facility (i.e., Standing alone facilities), Airborne infection lsolation Room - AllR(s) should be available to provide care for those patients.

5.3 Prevention and Management of HBV Infection:

5.3.1 Dialysis patients may become infected through the followings means:

- internally through contaminated dialysis equipment (e.g., venous pressure gauges, isolators or filters).

- Externally through contaminated dialysis machines, including their surfaces, control knobs or intravenous poles.
- improperly prepared or contaminated injection site.
- Through breaks in the skin or mucous membranes.
- Contaminated items and surfaces such as clamps, scissors, telephones or walls. improper handling of multiple-dose medication vials and intravenous solutions.
- The dialysis staff (contaminated hands, gloves and other objects)

5.3.2 Preventing Hepatitis B virus (HBV) transmission among chronic hemodialysis patients requires:

5.3.2.1 Infection control precautions recommended for all hemodialysis patients.

5.3.2.2 Routine serologic testing for markers of Hepatitis B virus (HBV) infection and prompt review of results.

5.3.2.3 Vaccination

5.3.3 Management of HBV-infected Patients:

5.3.3.1 Specify separate room(s) for treatment of HBV-infected patients (HBsAg positive patient must be strictly isolated in distinct room).

5.3.3.2 Designate machines, equipment, instruments, medications, and supplies exclusively for HBV-infected patients (i.e., will not be used by HBV susceptible patients).

5.3.3.3 Most importantly, staff members who are caring for HBsAg-positive patients should not care for HBV-susceptible patients at the same time.

5.3.4 Routine Serologic Testing at dialysis units:

5.3.4.1 Routine Serologic Testing of dialysis patients:

Serologic testing for hepatitis B surface antigen (HBsAg), antibody to the core antigen (anti-HBc), antibody to hepatitis B surface antigen (anti-HBs), in addition to antibody to hepatitis C virus (anti-HCV), and alanine aminotransferase

(ALT)should be performed on admission to a hemodialysis unit according to the following schedule:

Patient Status	On Admission*	Monthly	Semi-annual	Annual
All patients	HBsAg, anti-HBc, anti-HBs, anti-HCV, ALT			
Unvaccinated individuals and Non responders to vaccine		HBsAg		
Anti-HBspositive(>10 mIU/mL), anti-HBc negative				Anti-HBs
Anti-HBs and anti-HBc positive		No additional HBV testing needed		
Anti-HCV negative		ALT	Anti-HCV	

* Results for HBV testing should be known before the patient begins dialysis.

HBsAg, Hepatitis B surface antigen; anti-HBc, antibody to hepatitis B core antigen; anti-HBs, antibody to hepatitis B surface antigen; anti-HCV, antibody to hepatitis C virus; ALT, alanine aminotransferase.

5.3.4.1.1 Results of hepatitis B testing should be known before the patient begins dialysis. lf results are not known, the patient should be treated as if he or she is HBsAg positive until the results indicate otherwise.

5.3.4.1.2 Patients who are anti-HBc and anti-HBs positive do not require further hepatitis B virus-related testing.

5.3.4.1.3 Patients who are only anti-HBs positive require annual anti-HBs testing and a booster if anti-HBs declines to less than 1.0 mlU/mL.

5.3.4.1.4 Patients susceptible to hepatitis B virus, including those with no response to the vaccine, should be tested monthly for HBsAg.

5.3.4.1.5 When testing for HBsAg, care should be taken as recent vaccination with hepatitis B vaccine may result in positive HBsAg results for 7 to 30 days after vaccination.

5.3.4.1.6 All anti-HCV negative patients should be tested for increased ALT at least monthly and anti-HCV semiannually.

*** Note: Routine testing of patients for HDV or HIV infection for purposes of infection control is not recommended.**

5.3.4.2 Routine Serologic Testing of dialysis staff:

5.3.4.2.1 Routine testing of staff for HBV is no longer considered necessary as their risk is not greater than that of other healthcare personnel.

5.3.4.2.2 Routine testing of staff members for other bloodborne pathogens (HCV, HDV and HIV) is also not recommended.

4.3.1 Hepatitis B Vaccination:

4.3.1.1 Hepatitis B vaccine is recommended for all susceptible hemodialysis patients and staff. Because antibody response is poorer in hemodialysis patients than in healthy control subjects, an increased number of vaccine doses or larger vaccine doses are required. ln addition, vaccine-induced protection is less complete in dialysis patients and requires administration of booster doses if antibody levels decline below 10 m lU/mL.

4.3.1.2 Vaccine dosage for Adults) 20 years: Engerix-8 (20 mcg/mL): Administer 2 mL per dose at O, 1, 2, and 6 months - Recombivax HB (40 mcg/mL): Administer 1 mL per dose at 0, 1, and 6 months

5.3.1.3 After 1to 2 months of the last dose test for anti-HBs.

5.3.L.4 lf anti-HBs levels are below 10 m lU/ml, revaccinate with three additional doses.

5.3.1.5 Staff Vaccination:

5.3.1.5.1 For staff personnel who respond to hepatitis B vaccine, booster doses of vaccine are not necessary, and periodic serologic testing is not recommended to monitor antibody concentrations.

5.3.1.5.2 Primary non-responders to vaccination who are HBs Ag negative should be labeled susceptible to HBV infection and counseled concerning recommended precautions to prevent HBV infection and the need to obtain post-exposure prophylaxis with hepatitis B immune globulin for any known or likely percutaneous or mucosal exposure to HBs Ag positive blood.
5.3.1.5.3 Estimate staff members who do not respond to revaccination to determine if they are HBs AB positive.

5.3.2 HBsAg-positive Seroconversion:

5.3.2.1 Report HBsAg-positive seroconversion in a chronic hemodialysis patient to local health directorate as required by law or regulations.

5.3.2.2 Verify that the patient has not received Hepatitis B vaccine within the preceding 30 days (vaccine-related antigen may be detected).

5.3.2.3 lsolate the patient until the case is ruled out or the patient is HBsAg negative.

5.3.2.4. Perform additional testing as indicated. lt is recommended that the patient's physician verify infection and determine clinical outcome by sending Hepatitis B viral load, anti-HBs, and anti-HBc.

5.3.2.5. Review records of all other hemodialysis patients' routine laboratory results to identify other possible additional cases.

5.3.2.6. Investigate potential sources to decide if transmission might have happened within the dialysis unit, including review the patient's medical record for recent medical interventions that could have resulted in infection (e.g., blood transfusions, invasive procedures or hospitalization) and for high-risk behaviors (e.g., injecting drug abuse, sexual activity or tattoos, and review hemodialysis unit practices and procedures for possible breaks in routine procedures (e.g., medication distribution, routine cleaning and disinfection of dialysis machines and surfaces, or sharing of common use items) that could have led to transmission from an unrecognized case.

5.3.2.7. Perform counseling and medical evaluation of newly Hepatitis B infected patients with vaccination of contacts.

5.4 Prevention and Management of HCV Infection:

5.4.1 Screening

5.4.1.1 Screening of patients for HCV should be performed upon admission to determine the prevalence of the virus in the hemodialysis unit.

5.4.1.2 Screening for ALT and anti-HCV should be carried out upon admission, with anti HCV-negative patients screened monthly for ALT and semi-annually for anti HCV.

5.4.2 Management of HCV infection

5.4.2.1 There is no consensus regarding the need to isolate HCV infected patients and dialyze them on dedicated machines to prevent transmission.

5.4.2.2 HCV transmission within the dialysis environment can be prevented by strict adherence to the infection control precautions recommended for all hemodialysis patients.

5.4.2.3 Although the isolation of HCV-infected patients is not recommended, routine testing for ALT and anti-HCV is important for monitoring transmission within centers and ensuring that appropriate precautions are being properly and consistently used.

5.4.2.4 HCV-positive patients should receive information concerning how they can prevent further harm to their liver and prevent transmitting HCV to others.

5.4.3 HCV-negative patients

5.4.3.1 Monthly ALT testing will facilitate the timely detection of new infections and provide a pattern from which to determine when exposure or infection may have occurred.

5.4.3.2 ln the absence of unexplained ALT elevation, testing for anti-HCV (ELISA) every 5 months should be sufficient to monitor the occurrence of new HCV infections.

5.4.3.3 lf unexplained ALT elevation is observed in patients who are anti-HCV negative, repeated anti-HCV testing (ELISA) is necessary. lf unexplained ALT elevation persists in patients who repeatedly test anti-HCV negative, testing for HCV RNA (PCR) should be considered.

5.4.4 Previously HCV-positive patients who were treated with DAAs (Direct Anti-viral Agents) and achieved SVR {sustained Virologic Response}:

5.4.4.1 Testing for HCV RNA (PCR) could be repeated semiannually to detect relapse.

5.4.5 Anti-HCV Seroconversion:

5.4.5.1 Report HCV seroconversion in a chronic hemodialysis patient to the local health directorate as required by law or regulations.

5.4.5.2 Perform additional testing as indicated. lt is recommended that the patient's physician verification of infection and determine clinical outcome.

5.4.5.3 Review records of all other hemodialysis patients' routine laboratory results to identify other possible additional cases.

5.4.5.4 lnvestigate potential sources to decide if transmission might have happened within the dialysis unit, including review the patient's medical record for recent medical interventions that could have resulted in infection (e.9., blood transfusions, invasive procedures or hospitalization) and for high-risk behaviors (e.g., injecting drug abuse, sexual activity or tattoos, and review hemodialysis unit practices and procedures for possible breaks in routine procedures (e.g., medication distribution, routine cleaning and disinfection of dialysis machines and surfaces, or

sharing of common use items) that could have led to transmission in the hemodialysis unit from an unrecognized case.

5.4.5.5 Perform more frequent monitoring (every l. - 3 months) for a limited time to detect additional infections. lf no additional cases are identified, routine semiannual testing can be resumed.

5.4.5.6 lf additional cases are identified, possible control measures should be identified. implementation of control measures should be carefully monitored for consistent application.
5.4.5.7 Perform counseling and medical evaluation of newly HCV infected patients.

5.5 Prevention and Management of HDV Infection:

5.5.1 Screening

5.5.1.1 Routine testing for HDV infection for the purpose of infection control is not recommended.

85.5.1.2 Hepatitis B Vaccination **of HBV- susceptible** patients for prevention of HBV transmission will reduce the risk of HDV infection.

5.5.2 Management of HDV infection:

5.5.2.1 Patients known to be infected with HDV should be isolated from all other dialysis patients, including HBV-positive patients, and should receive dialysis on dedicated machines.
5.5.2.2 Routine screening for HDV is only indicated if there is a patient who is known to be infected with HDV or evidence of transmission within the dialysis unit.

5.6 Prevention and Management of HIV Infection:

5.6.1 Screening

5.6.1.1 Routine testing for HIV infection for the purpose of infection control is not recommended
5.6.1.2 Patients with risk factors for HIV infection should be tested. lf found to be positive, they should receive proper medical care and counseling regarding preventing the transmission of the virus.

5.6.2 Management of HIV infection

5.6.2.1 There is no need to isolate patients who are HIV-antibody +ve or have acquired immunodeficiency syndrome (AIDS) from other patients or receive dialysis on separate machines to prevent transmission.

5.6.2.2 HIV transmission between patients within the dialysis environment can be prevented by strict adherence to the infection control precautions (i.e., standard precautions) recommended for all hemodialysis patients.

5.7 Selection and Maintenance of Vascular Access for Hemodialysis:

Three Types of Vascular access in order of preference: Fistula, Graft, Central Venous Catheter (CVC).

5.7.1 AV Fistula: a surgical anastomosis between an artery and a vein that allows arterial blood to flow through the vein, causing the vein to distend and the vessel to thicken.

4.7.1.2 This type of access is the preferred access for chronic hemodialysis. There is a sevenfold greater risk for bacteremia in patients with a dialysis catheter than in those with a primary AV fistula.

5.7.1.2 Infection may result from breaches in infection prevention practices, including aseptic technique, bacterial seeding from another part of the body, or poor hygiene and care of the access arm.

5.7.1.3 Because of infection risk, creation of the AV fistula in the upper arm is preferred over the thigh, and maturation of the surgical anastomosis for 1 to 4 months is necessary before use.

5.7.1.4 Sterile preparation of the skin over the fistula site (creation of sterile field, use of sterile barriers and sterile gloves) is not more effective in preventing infection than clean technique (clean barriers and c le a n gloves with strict attention to aseptic technique).

5.7.2 AV Graft: lf an AV fistula cannot be established in a patient requiring chronic access, an AV graft is the next preferred: a biologic, semi biologic, or prosthetic graft is implanted subcutaneously to form an anastomosis between an artery and a vein.

5.7.2.1 Causes of infection are the same as those of an internal AV fistula. However, complications resulting from infection may be more severe because of the risk of disintegration of graft materials and subsequent hemorrhage.

- All patients should be taught to wash their access site with soap and water daily and before hemodialysis. Patients should also be instructed to ensure that all staff accessing the access site are preparing the skin appropriately and in the proper way prior to cannulation plus wearing a mask for all access connections.
- 2% chlorhexidine gluconate (CHG) is the antiseptic of choice. lf povidone-iodine solution is used (apply for 2 - 3 minutes) and/or 70 percent alcohol (apply in rubbing motion for one minute in an outward circular motion to insertion site and allow it to dry before cannulation). the insertion site should not be palpated once the site has been prepared. .
- Patients should be taught to recognize symptoms and signs of infection either at the access site or remote site (e.g., fever, chills, and pain, redness, or drainage around the access site)
- To prevent seeding of the access site by microor8anisms, remote sites of infection also should be identified and effectively treated as quickly as possible.

5.7.3 Central Venous catheter (CVC) / Temporary vascular access devices:

5.7.3.1 Non tunneled central line:

A central venous catheter that goes directly from the skin entry site to a vein and terminates close to the heart or one of the great vessels typically intended for short term use.

5.7.3.2 Tunneled central line:

A central venous catheter that travels a distance under the skin from the insertion point before terminating at or close to the heart or one of the great vessels.

5.7.3.3 For acute hemodialysis, where access for less than 3 weeks' duration is anticipated, vascular access may be obtained using a non-cuffed or cuffed catheter.

5.7.3.4 If a catheter must be used for access for longer than 3 weeks, a tunneled, cuffed central venous catheter should be used (if possible, it should not be placed on the same side as a maturing AV access).

5.7.3.4.1 The preferred insertion site is the right internal jugular.

5.7.3.4.2 Subclavian access should be only used when jugular options are not available and in patients who are not anticipated to need permanent vascular access (with subclavian CVC, there is a Greater incidence of central venous thrombosis and stenosis).

5.1.3.4.3 Because of associated infection rates of femoral catheters, they should be only placed in bed-bound patients with good exit site care and left in place for no more than five days.

5.7.3.4.4 Percutaneously inserted, non-cuffed central venous catheters have been associated with the highest rates of bacteremia in the hemodialysis setting.

5.7.3.4.5 The following recommendations are for the prevention of catheter associated infections.

5.7.3.4.5.1 Catheters should be inserted using maximal sterile Barrier Precautions: Special room for insertion equipped with hand washing facility, PPE (mask, sterile gloves, and long-sleeve sterile gown), and large sterile sheet or drape.

5.7.3.4.2 Emphasis should be placed on the principles of asepsis when accessing or caring for temporary vascular accesses.

5.7.3.4.3 Use of hemodialysis catheters for other purposes (e.g., administration of fluids, blood /blood products, or parenteral nutrition) should be restricted to circumstances where no alternative vascular access is feasible.

5.7.3.4.4 All personnel involved in the maintenance of intravascular catheters should receive education in appropriate infection control measures and be periodically assessed in knowledge of and adherence to the guidelines.

It is recommended for the patient and staff members to wear masks for all access connections.

5.7.3.4.5 Transparent dressing is preferred unless the insertion site is oozing, in which case gauze should be used.

5.7.3.4.6 The dressing should be replaced when it becomes damp, loosened, or soiled or when inspection of the site is necessary.

5.7.3.4.7 Gauze dressings should be replaced every 2 days and transparent dressings at least every 7 days on short-term central venous catheters placed in adults and no more than once a week on tunneled or implanted central venous catheter sites until the insertion site has healed.

5.7.3.4.8 Because of its broad spectrum of activity, a (> O.5o/ol chlorhexidine gluconate (CHG) preparation with alcohol is the antiseptic of choice. However, CHG products currently available are not compatible with all dialysis catheters; therefore, the catheter manufacturer should be consulted regarding compatibility.

5.7.3.4.9 lf chlorhexidine cannot be used, povidone-iodine is used. lt is recommended to use povidone-iodine ointment at the catheter exit site of hemodialysis patients if the ointment does not interact with the material of the hemodialysis catheter.

5.7.3.4.10 There is fourfold decrease in the rate of central line-associated bloodstream infections (CLABSIs) in hemodialysis patients by individually wrapping the catheter hubs with gauze soaked in povidone-iodine for 5 minutes prior to removal of the caps, wearing masks by the nurse and the patient, donning a fresh pair of gloves for cap removal, wiping the surface that had been covered with a cap with a povidone-iodine, and immediately connecting the catheter hubs at connection.

5.7.3.4.11 Patients should be instructed to keep central venous catheter dressing clean and dry and not to submerge their catheter or catheter site in water. They, or their caregivers, should also be instructed in the proper way to care for the site and replace the dressing if it became compromised.

5.7.3.4.12 Emphasis should be placed on early recognition of possible signs of infection (tenderness, redness, or drainage around the insertion site) and the principles of asepsis when accessing or caring for temporary vascular accesses.

5.8 Water treatment in dialysis unit:

The purity of water used for hemodialysis, reuse, or concentrate preparation is critical. Most hemodialysis centers have water treatment systems that consist of a water softener, carbon filters, particulate filters, reverse osmosis and or deionizers, and filters and ultrafilters, with or without ultraviolet (UV) light. Systems should be designed to eliminate the anticipated chemical and biologic impurities found in the potable water in the location where they are installed. Infection

preventionists should be familiar with the purity of local potable water, the components of their facility's water treatment system, and should understand potential problems.

5.8.1 Particulate filters Multimedia (depth filter) (sediment filters):

5.8.1.1 Permanent, back washable sediment filters, also known as "bed filters," are frequently located at or near the beginning of water treatment systems and are intended to remove sediment (coarse particulate materials) from incoming water that could damage or clog the water treatment system. Although a single filtration medium may be used, bed filters known as multimedia filters are more commonly selected. These units contain multiple layers, each layer retaining progressively smaller particles. ln this way, the bed is used to its fullest extent; the largest particles are removed in the first layer and the smallest in the final layer.

5.8.1.2 As the bed accumulates particulate material, open passages begin to clog and resistance to the water flowing through the filter increases. Ultimately, it will lead to a reduction in water flow to downstream components. To avoid this scenario, bed filters are cleaned by periodic backwashing, which is accomplished either manually or by using a timer activated control valve.

5.8.1.3 Bacterial growth can occur on the filter and c a n lead to subsequent bacteremia and/or pyrogenic reactions. Particulate filters should be monitored for pressure drops across the filter and disinfected or replaced according to the manufacturer's recommendations.

5.8-2 Carbon filters:

5.8.2.1 Carbon filters remove chlorine, chloramine, and organic material from the municipal water supply. Failure to remove free chlorine and chloramine can degrade some reverse osmosis membranes, which can cause lysis of red blood cells. Carbon filters are prone to bacterial contamination because of their porosity and affinity for organics.

5.8.2.2 Because the temperature and pH of incoming water affects the capacity of carbon filters to remove free chlorine and chloramine, water treatment systems for hemodialysis should adjust temperature of incoming water, if necessary, and have at least two carbon filters in series.

5.8.2.3 Sample ports should be located after each tank, and chloramine testing should be conducted at least every 4 hours while patients are undergoing hemodialysis. The system should be operating for at least 15 minutes before testing is performed.

5.8.2.4 Because of the risk of cross-contamination and inadequate disinfection, granular-activated carbon should be used and replaced, not regenerated, when carbon filters become exhausted.

5.8.3 Water Softener:

5.8.3.1 Removes calcium and magnesium from the incoming city water by "ionic exchange" (i.e., the calcium and magnesium ions in water are exchanged for sodium ions).

5.8.3.2 "Brine tank" (tank of concentrated salt solution) supplies the softener with sodium. When sodium is no longer available to be exchanged, the water softener must be regenerated.

5.8.3.**3 Permanent softeners**: permanent softeners are regenerated at the point of use with concentrated salt "sodium chloride" solution (i.e., brine tank). Regeneration should not occur while undergoing hemodialysis because this may result in unacceptably high sodium levels in effluent and hypernatremia (it is recommended that water softeners have automated controls that prevent the flow of water during regeneration).

5.8.3.**4 Portable softeners**: portable softeners are provided by a vendor and exchanged for a new softener when they become depleted. Softeners are regenerated by the vendor at a central facility to be reused at the same or different dialysis facilities

5.8.4 Micron Filters:

5.8.4.1 These are used to remove any particles coming through the tank filtration system before entering the RO.

5.8.5 Reverse Osmosis (RO):

5.8.5.1 Reverse osmosis (RO) uses osmotic and hydrostatic pressures over semipermeable membranes to remove dissolved solutes, bacteria, viruses, endotoxin and pyrogens (in theory RO is capable of removing 90%to99%of electrolytes and all bacteria, viruses and endotoxins).

5.8.5.2 The quality of effluent water from an RO system depends on the quality of water going in (softened, carbon, and particulate filtered) and the integrity of the semipermeable membrane.

5.8.5.3 Cleaning and restoration of semipermeable membranes should be done accord i ng to the manufacturer's recommendations.

5.8.6 Deionizers (Dl):

5.8.6.1 Deionizers contain resin beds, which remove cations and anions by binding them to the resin and releasing hydrogen and hydroxyl ions.

5.8.6.2 Deionizers do not remove bacteria and endotoxin and resin beds may contribute to bacterial growth significantly. For these reasons, if the deionizing system is the last process in the water treatment system, it must be followed by an ultrafilter or other bacteria and endotoxin-reducing device.

5.8.6.3 Because deionizers may produce effluent with carcinogenic nitrosamines unless preceded by carbon absorption, deionizers must always be preceded upstream by carbon filters. Deionizers are rarely used as the main water treatment components that remove ions; they are used as a backup to RO.

5.8.7 Ultraviolet Light:

5.8.7.1 Some dialysis centers may use UV lights to reduce microbial contamination. However, care must be taken as UV irradiation does not remove endotoxin and it may be ineffective in killing some microbes if the radiant energy decreases below effective levels or the light cannot reach microorganisms.

5.8.8 Ultrafilters (Bacterial and endotoxin retentive filters:

5.8.8.1 Dialysis centers use ultrafilters, with or without UV lights, to remove bacteria and endotoxins. The ultrafilter should be the best component of the water processing system before the distribution loop.

5.8.8.2 Because no system should be considered 1O0% effective at removing bacteria or endotoxin, the use of ultra-filters does not eliminate the need for monitoring of bacterial and/or endotoxin contamination.

5.8.9 Water distribution and storage:

5.8.9.1 Water distribution systems should be constructed of plastic pipes because metal pipes could contaminate the treated water with chemicals such as copper, lead, or zinc.

5.8.9.2 The system should be configured as a continuous loop, with no dead ends or unused branches and minimal number of elbows and T joints because stagnant areas may serve as a source of bacterial contamination for the rest of the water system.

5.8.9.3 The outlets of water distribution system should be at the highest point to allow adequate contact of all parts of the system with germicide during disinfection

5.8.9.4 When possible, storage tanks should not be used because they increase the amount of water and surface area available for bacterial contamination. lf a storage tank is used, it should be:

5.8.9.4.1 The smallest tank possible.

5.8.9.4.2 Designed to have a constant flow with no stagnant areas.

5.8.9.4.3 With an airtight lid, and vented through a hydrophobic 0.2-micron air filter.

5.8.9.4.4 Able to be cleaned, disinfected, and rinsed.

5.8.9.4.5 With a conical or bowl-shaped base, and drain from the bottom.

5.8.9.5 All piping (including water lines from the processed water outlet to the dialysis machines) and storage tanks must be disinfected at intervals adequate to prevent bacterial growth. The interval will depend on the quality of water entering the system and on the system's design.

5.8.9.6 ANSI/AAMI/ISO standards specify the limits of total viable bacteria of 100 colony-forming units per milliliter (cfu/ml), with a need for action if results are in excess of 50 cfu/ml.

5.8.9.7 Also ANSI/AAMI/ISO standards specify endotoxin limits of less than 0.25 ELISA units per milliliter (Eulml) in processed water (s 0.5 in dialysate). With Endotoxin levels > 0.125 EU/ml in processed water (0.25 EU/ml in dialysate) action is required.

5.8.10 Disinfection of the Dialysis System:

5.8.10.1 The routine disinfection of isolated components of a dialysis system is usually inadequate (i.e., the complete dialysis system: water treatment system, distribution system and dialysis machine should be considered du ring the disinfection procedure).

5.8.10.2 Disinfection procedures used for the machine to control bacterial infection are considered sufficient to reduce blood contamination below infectious levels (i.e., it is not

only to prevent the multiplication of waterborne bacteria to a significant level but also to eliminate bloodborne viruses.)

5.8.10.3 Recirculating or recirculating single-pass dialysis machines should be disinfected immediately prior to first use of the day and after each use.

5.8.10.4 For single-pass machines, the disinfection process should be performed immediately prior to first use of the day and at the frequency recommended by the manufacturer of the machine.

5.8.10.5 For the purpose of disinfecting dialysis systems, the manufacturer/s instructions should be followed for both the machines and the disinfectants.

5.9 Monitoring of water that is used for hemodialysis:

5.9.1 Microbiological testing

5.9.1.1 Frequency of Testing

5.9.1.1.1 Microbiologic monitoring of treated water and dialysate (Bacterial counts and endotoxin levels) should be performed at least monthly and more frequently if problems are identified (i.e., weekly if not up to the standards).

5.9.1.1.2 Weekly testing for one month should be done when a water distribution system or dialysate system is new or a change has been made in the existing system.

5.9.1.2 Requirement of Sampling

5.9.1.2.1 Samples should always be taken before disinfection or sanitization of the water system or dialysis machines.

5.9.1.2.2 Minimum sites of sampling for testing:

a) Post RO membrane

b) First point of the water distribution loop (first outlet or first machine port)

c) End point of the water distribution loop (last outlet or last machine port)

5.9.1.2.3 lf a problem with the water system is suspected, additional test sites may include before the RO membrane, after the storage tank, before and after deionization tanks, and other locations in the water distribution loop.

5.9.1.3 Dialysate Samples for Bacterial Testing

5.9.1.3.1 Test at least 2 machines a month

5.9.1.3.2 Rotate so that each machine is tested at least once per year

5.9.1.3.3 Obtain sample from the dialysate port of the dialyzer or a sampling port

5.9.1.3.4 Process immediately or refrigerate to retard growth

5.9.1.4 Limits and Action Level

5.9.1.4.1 Maximum Allowed

A) CFU level < 100 CFU/ml

B) Endotoxin level < 0.25 EU/ml

5.9.1.4.2 Action Level

The action level is the concentration at which corrective measures are to be immediately conducted to reduce the bacteria and/or endotoxin levels, which are typically 50% of the maximum allowable level.

A) CFU level > 50 CFU/ml

B) Endotoxin Level > 0.125EUlml (Ref: AAMI/ISO 23500: 2011

Note: lf Action Levels are observed, disinfection and retesting shall be done immediately to restore the quality to an acceptable level.

5.9.1.5 Laboratory

All samples shall be sent to a designated laboratory recognized by the General directorates of laboratories and blood bank of the MOH.

5.9.1.6 Record

All the results shall be properly documented and made available for inspection.

Table 1: Testing requirements and interpretation of renal dialysis fluid and water used for the preparation of dialysis fluid.

Hazard/ hygiene indicator	Timing/ frequency of testing	Result	interpretation	Action	References
Bacterial Colony Counts (cFU)	Monthly (or more frequently 'if necessary)	0-<50/ml	Satisfactory	No action; system under control	UK renal association, 2009
		>50-<100/ml	Borderline	investigate cause and put corrective action in place	
		>100/ml	Unsatisfactory	Take out of use until corrective action implemented	
Endotoxin Levels (EU/mt)		0-<0.125EUlml	Satisfactory	No action; system under control	
		0.25>-0.125< EUlml	Borderline	investigate cause and put corrective action in place	
		> 0.25 EUlml	Unsatisfactory	Take out of use until corrective action implemented	

5.9.2 Chemical Contaminants

Permissible levels of chemical contaminants should be routinely observed and adhered to

5.9.2.1 Frequency of Testing

5.9.2.1.1 Semiannually or at least annually chemical monitoring of treated water should be performed in an accredited laboratory for full chemical analysis every 6 months or at least yearly. More frequent testing may be indicated based on potable water entering the system, design of the system, modifications to the system, or occurrence of symptoms that could be associated with chemical contamination of the water system.

5.9,2,1.2 Dally using commercially available test kits for chlorine and chloramines at the beginning of the day and every 4 hours while patients are undergoing hemodialysis. Maximum allowable levels for chlorine 0,5 mg/L and chloramine 0.7 mg/L.

5.9.2.2 Method of Testing

5.9.2.2.1 Chlorine and Chloramines and water hardness testing performed onsite using commercially available test kits.

5.9.2.2.2 Full analysis for chemical contaminants shall be performed by an accredited laboratory.

Table 2: Maximum allowable levels of chemical contaminants as determined by AAMI and their effects if exceeded

Chemical	Contamination level	Effects
Aluminum	0.01mg/L	Associated with anemia, bone disease, and neurological deterioration; can lead to a progressive syndrome of neurologic deterioration and encephalopathy known as dialysis dementia.
Chloramines (combined chlorines)	0.10 mg/L	Associated with hemolysis, hemolytic anemia, and methemoglobinemia.
Fluoride	O.2 mg/L	Associated with bone disease, pruritus, chest pain, nausea, vomiting, and cardiac arrest due to ventricular fibrillation.
Copper	0.1 mg/L	Associated with chills, nausea, vomiting, and headaches as well as anemia, liver damage, and fatal hemolysis
Zinc	0.1mg/L	Associated with nausea, vomiting, fever, and anemia
Nitrate	2 mg/L	Associated with methemoglobinemia, cyanosis, hypotension, and nausea.
Sulfate	100 mg/L	Associated with nausea, vomiting, and metabolic acidosis
Calcium Magnesium	2 mg/L 4 mg/L	Has resulted in a syndrome characterized by nausea, vomiting, muscular weakness, skin flushing, and hypertension or hypotension
Sodium	(3.0 mEq/L)	Can lead to hypernatremia, increased thirst, and excess water intake

5.9.3 Implications of inadequate Treatment or Distribution of Water

Chemical and bacterial contamination of water used for dialysis has been associated with severe illness and/or death.

5.9.3.1 Effects of Chemical Contaminants

Chemical contamination of water has been associated with severe adverse events in patients and can be mistaken as signs of infection.

5.9.3.2 **Gram-negative bacteria**: Gram-negative bacteria have been associated with pyrogenic reactions and bacteremia. Symptoms include shaking chills, fever, hypotension, headaches, myalgia, nausea, and vomiting.

5.9.3.3 **Endotoxin: Endotoxin** can acutely activate both humoral and cellular immune response, leading to fever, shaking chills, hypotension, multisystem organ failure, and even death. Long-term exposure may lead to a chronic inflammatory response.

5.9.3.4 **Non-tuberculous mycobacteria**: Non-tuberculous mycobacteria have been associated with disseminated disease, bacteremia, localized abscess, and localized graft infection. Symptoms include fever, malaise, and anorexia.

5.9.4 Responsibility

5.9.4.1 Public health personnel (in coordination with hemodialysis unit staff) are responsible for conducting initial and routine monthly sampling of treated water for hemodialysis after installation of a water treatment and distribution systems; reporting the results to hemodialysis responsible staff for proper documentation and identifying trends in these results; and, taking corrective measures when abnormal results are reported.

Public health personnel should be knowledgeable of all aspects of the water treatment and distribution system for the facility and - in coordination with hemodialysis staff and lP&C personnel - have the authority to investigate and act on problems related to the quality of water used (e.9., water related outbreaks or other dialysis events).

Public health personnel serve as the reference point for training and consultations related to water quality standards. lf doesn't meet standards, weekly testing until resolved.

5.9.4.2 U&M will maintain the reverse osmosis water treatment plants; conduct disinfection of water treatment and distribution systems; do water sampling and testing; report the results; and, take corrective actions accordingly and as per their related standard operating procedures (SOPs) and guidelines.

5.9.4.3 Laboratory personnel will receive the samples; analyze them; and, report results in a timely manner and as per related SOPs.

5.9.4.4 lP&C personnel are responsible of reviewing regularity of routine monitoring of treated water for hemodialysis as per MOH guidelines (i.e., double-checking for frequency of testing; testing methods; and corrective measures with abnormal results).

5.9.4.5 Ultimate responsibility for water quality for hemodialysis rests with the medical director of the facility

5.9.5 Quality control:

5.9.5.1 Policies & Procedures:

Every hemodialysis unit should have written policies and procedures for the safe operation of the water treatment systems, including education policies, obtaining water samples, testing of samples, recording and identifying trends in results, action to be taken when high test results are obtained closure of the Dialysis unit and Occupational Health and Safety principles, including vaccination of staff and post exposure management

5.9.5.2 Committee: members of this committee must share responsibility for the safe operation of the water plant and have the authority to make decisions and implement the necessary actions to assure correction of a problem.

Members of this committee must include dialysis unit's medical director, representatives of medical, nursing and technical staff working in dialysis unit who should participate together in regular committee meetings to review the safe operation of the water treatment systems.

6.0. RELATEDPOLICY / CROSS REFERENCES:

6.1. MOH guidelines

6.2. GCC guidelines Infection Prevention and Control Manual 3rd edition 2018.

6.3 **APIC** text book 2017

7.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR S.C.# 06-NN-8386	06 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Dr. Ahmed Abdul Haleem	Head Of HDU	Dr.Ahmed Abd ElHalim Nephrologist	11 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SCFHS 13-R-M-0046094	19 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		21 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		25 MAR 2019

8.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC37-1	April 1, 2012
Replaced by	IDP-IC-007(2)	April 1, 2014
Deleted	IDP-IC-003(2)	April 1, 2016
Replaced by New Policy and Procedure	IDP-IC-007(4)	April 1, 2019

Attachment 1: Hemodialysis Department Checklist

وزارة الصحة
Ministry of Health

AFIF GENERAL HOSPITAL
INFECTION CONTROL DEPARTMENT
INFECTION CONTROL CHECKLIST
HEMODIALYSIS DEPARTMENT

DATE: _____

Sl. No		Yes	No	Remarks
1.	There is sufficient space (1.2-1.5 meters) between patients.			
2.	There is clear separation between patient care (contaminated and office/clean supply areas.			
3.	Standard precautions are strictly implemented in the unit.			
4.	Adequate supply of personal protective equipment is available and readily accessible.			
5.	Adequate hand washing facilities are available in the unit (one sink for every 2-4 chair/beds).			
6.	Staff has thorough knowledge about avoiding cross contamination.			
7.	Sharp disposal containers are located at each chair/bed.			
8.	Infectious wastes are disposed according to hospital waste disposal policies.			
9.	The surfaces of machines and chair/beds are disinfected after use with an approved disinfectants.			
10.	Equipment such as blood pressure cuffs, stethoscopes, clamps, scissor and thermometers are allocated to single patient and are disinfected after each patient treatment.			
11.	Multi dose vials are adequately labeled and used for one patient only.			
12.	All patients are screened for HCV, HIV and HBsAg at the beginning of dialysis and re-screened every 3-6 months.			
13.	All patient infected with Hepatitis B are treated on a separate machine in a separate room.			
14.	All hemodialysis unit employees are screened for Hepatitis B and Hepatitis C and are immunized with Hepatitis B vaccine.			

Checked by: _____

Afif General Hospital
Infection Prevention & Control Department
Dialysis Event (DE) Surveillance Form

وزارة الصحة
Ministry of Health

SECTION I: PATIENT AND HOSPITAL INFORMATION

Patient ID: | | | | | | | | | | |

Date of Birth: | | | | | | | | |
D D M M Y Y Y Y

Surveillance Plan Date: | | | | |
M M Y Y

Gender: ☐ Male ☐ Female

Facility ID: | | | | | | | |

Location: _____

SECTION II: VASCULAR ACCESS INFORMATION

Specify Vascular Access: (check all that apply)

☐ Arteriovenous Fistulas ☐ Arteriovenous Graft ☐ Permanent Central Line ☐ Temporary Central Line ☐ Port Access Device

SECTION III: EVENT INFORMATION

DE Date: | | | | | | |
D D M M Y Y

Specify DE Incident (may be more than one incident)

1- Hospitalization: ☐ Yes ☐ No

2- In-unit IV Antimicrobial Start: ☐ Yes ☐ No
If yes, was IV Vancomycin started? ☐ Yes ☐ No

3- Positive Blood Culture (Blood Stream Infection, BSI) ☐ Yes ☐ No ☐ Unknown ☐ Not done
If yes, suspected source of positive blood culture (check one):
- ☐ Vascular Access
- ☐ A Source other than the Vascular Access
- ☐ Contamination
- ☐ Uncertain

SECTION IV: PROBLEMS

Specify problems: (check one or more)

☐ **Local Access Infection** (pus, redness, or increased swelling at vascular access site without access-associated BSI)
If applicable, check the access with pus, redness, or increased swelling:
☐ AV Fistula ☐ AV Graft ☐ Permanent Central Line ☐ Temporary Central Line ☐ Port Access Device

☐ **Vascular Access Problem without Infection** (clotting, bleeding, etc.)
☐ **Fever** (≥37.8°C/101°F rectal)
☐ **Wound** (NOT related to vascular access) with pus or increased redness
☐ **Cellulitis** (skin redness, heat, or pain without open wound)
☐ **Other,** specify:_____

SECTION V: LABORATORY RECORD

Time of Specimen Collection:
_____:_____ AM / PM

Organism Identified:
☐ Yes, complete the back
☐ No

COMMENTS:

Date Data Collected	D	D	M	M	Y	Y
Collector ID						
Date Data Entered	D	D	M	M	Y	Y
Data Entry ID						

SECTION V: LABORATORY RECORD

Name of Gram-Positive or Negative Organism(s)	Date of Record DD-MM-YY	Antimicrobial Sensitivity																										
		AMIK	AMP	AZTREON	CEFAZ	CFEP	CEFTAZ	CEFTOX	CEFTR	CEFUR	CIP	CLINDA	ERYTH	GEN/TOB	IMI	LEVO	LNZ	MERO	MET	MUP	NIT	OXA	PEN	PIP	RIF	SXT/TMZ	TAZ	VANC	OTHERS

Name of Other Organisms (e.g., Candida spp.)	**Date of record** DD-MM-YY	**Antimicrobial Sensitivity (type antimicrobial names)**					
		1-……	2-……	3-……	4-……	5……	6-……

Result Codes: **S** = Susceptible **I** = Intermediate **R** = Resistant **N** = Not tested

Drug Codes:

AMIK = amikacin
AMP = ampicillin
AZTREON = aztreonam
CEFAZ = cefazolin
CFEP = cefepime
CEFTAZ = ceftazidime
CEFTOX= cefotaxime
CEFTRI = ceftriaxone
CEFUR = cefuroxime
CIP = ciprofloxacin
CLINDA = clindamycin
ERYTH = erythromycin
GEN/TOB = gentamicin/tobramycin
IMI = imipenem
LEVO = levofloxacin
LNZ = linezolid
MERO = meropenem
MET = metronidazole
MUP = mupriocin
NIT = nitrofurantoin
OXA = oxacillin
PEN = penicillin
PIP = piperacillin
RIF = rifampicin
SXT/TMZ =sulfamethoxazole/trimethoprim
TAZ = piperacillin-tazobactam (tazocin)
VANC = vancomycin

Vascular access

1- Arteriovenous fistulas: Implanted access created from the patient's own blood vessels.
2- Arteriovenous graft: Implanted access constructed from synthetic materials
3- Permanent central line: tunneled cuffed catheter
4- Temporary central line: non-tunneled non-cuffed catheter
5- Port access device: a fully implantable access device (e.g., Lifesite)

DE Incident

1. **Hospitalization:** This event is for the patient who stayed overnight in a hospital, not just those patients who had infections or those patients who were directly admitted from the dialysis unit. Each time a patient is hospitalized, complete the forma s a new event irrespective of the time between the current and previous hospitalization. If a patient is hospitalized and returns to the dialysis unit on IV antimicrobials, both events will be included in the same event form, so do not complete a second event form.
2. **In-unit IV antimicrobial start:** This event is for the patient who is given IV antimicrobial agents in the dialysis unit for any reason, not just vancomycin for a vascular access problem. If IV antimicrobials are stopped for less than 21 days and then restarted, this is NOT considered a new event. However, if IV antimicrobials are stopped for 21 or more days and then restarted, this is considered a new event.
3. **Positive blood culture:** If the patient blood culture is positive, even if the patient did not have an associated hospitalization or in-unit IV antimicrobial start. Induce blood cultures taken as an outpatient or within 1 day after a hospital admission. If the patient had an associated hospitalization and/or in-unit IV antimicrobial start, either/both will be included on the same event form (together with culture), and do not complete a second event form; If the patient had neither, complete a new event for positive blood culture occurring 21 or more days after a previous positive blood culture. Suspected source of positive blood culture could be:
    - **Vascular access:** only if there is some objective evidence of vascular access infection (see below).
    - **A source other than the vascular access:** If either (a) or (b) is true: (a) a culture from another site (e.g., leg wound, urine) shows the same organism that was found in the blood; (b) there is clinical evidence of infection at another site, but a culture was not taken from it.
    - **Contamination:** If the organism is thought by the physician, infection control practitioner, or head nurse to be a contaminant. Contamination is more likely if a common skin contaminant (e.g., coagulase-negative staphylococci, diphteroids, Propionbacterium, or Bacillus spp.) is isolated from only one blood culture.
    - **Uncertain:** Only if there is insufficient evidence to decide among the three previous categories.

Other definitions

A vascular access infection is defined as a patient with either:

- **Local access infection:** the presence of pus, redness, or swelling of the vascular access site without an access-associated blood stream infection **or**
- **Access-associated bacteremia:** the presence of a microorganism identified in a blood culture where the source of infection is the vascular access site or unknown.

INTERDEPARTMENTAL POLICY AND PROCEDURE (IDP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
INFECTION CONTROL – OPERATING ROOM			IDP-IC-008(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	IDP-IC-008(3)	13
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS IN THE OPERATING ROOM OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1 To prevent OR personnel and patients undergoing surgical procedures from exposure to infections.

1.2 To understand Infection Control activities that may influence or decrease risk of infection transmission to themselves and to patients in OR.

2.0 DEFINITION (S):

2.1. Laminar air flow (LAF) – refers to air handling systems that produce little or no turbulence while directing the air flow.

2.2. Flash sterilization – is a quick-steam sterilization cycle that does not use the full sterilization cycle of exposure and day times.

2.3. Bloodborne pathogens – are microorganisms such as viruses, bacteria that are carried in the blood and can cause diseases in people. (e.g. Hepatitis B, Hepatitis C, and HIV)

3.0 POLICY STATEMENT(S):

3.1. All staff involved in the surgical techniques in the operating room shall understand infection prevention and control activities that may influence or decrease risk of infection transmission to themselves and to the patients in the operating room.

3.2. Standard precautions shall be applied for all invasive procedures which include the use of protective barriers, handwashing and care in the use and disposal of needles and other sharp instruments in the operating room.

4.0 EQUIPMENTS /MATERIALS /FORMS:

4.1. Personal Protective Equipment (PPE) – sterile gown, sterile gloves, surgical mask/N95, shoe cover, hair cover).

4.2. Hand Hygiene solution.

4.3. Attachment 1 : Operating Room Checklist

5.0 ROLES AND RESPONSIBILITIES:

5.1. All operating room personnel involve in the surgical techniques of the operating theater shall understand the infection control activities that may influence or decrease risk of transmission to themselves, co-workers and patients in the operating room.

6.0. PROCEDURE:

6.1. Special ventilation in Operating Room:

6.1.1. Maintain positive pressure ventilation with respect to corridors and adjacent areas to reduce the influx of non-filtered air into the theater.

6.1.2. Filter air as it enters OR, minimum of 15 air exchange per hour (ACH) to dilute any microbial contamination that may occur.

6.1.3. Filter all circulated fresh air through the appropriate filters, providing 90% efficiency (dust-spot testing) at a minimum.

6.1.4. In rooms not engineered for horizontal laminar air flow, air is introduced at the ceiling and exhausted near the floor.

6.1.5. Keep closed all operating room doors except during passage of patients, personnel and equipment.

6.1.6. Sliding doors are recommended to eliminate air turbulence caused by swinging door.

6.2. Traffic Control

6.2.1. Control personnel activities to reduce disruption of airflow.

6.2.2. Avoid overcrowding of personnel during operative procedures.

6.2.3. Exclude visitors and unauthorized personnel in the operating room as they may contaminate the materials set for patient's operation.

6.2.4. Strict observance of any staff not to go in and out of the room while surgery is in progress.

6.2.5. Traffic must be controlled to maintain separation of clean from dirty areas, to segregate clean/sterile supplies from contaminated materials, and to ensure that only authorized personnel in appropriate attire enter the Operating Room.

6.2.6. In unrestricted zone, personnel in street clothes are permitted and may mingle with those in surgical attire.

6.2.7. Surgical attire is required for entrance into this zone (scrub suit, hair covering and clean shoes or shoe covers if needed). Patients entering in this area are dressed in hospital attire with hair covered.

6.2.8. In restricted zone – (the actual operating room and scrub area), surgical attire and a face mask is required.

6.2.9. Keep closed all operating room doors except during passage of patients, personnel and equipment.

6.3. Supplies

6.3.1. Place on covered carts clean and sterile supplies taken to the operating room from reprocessing or supply area outside the suite.

6.3.2. Remove the dust cover over the cart when the cart enters the surgical suite.

6.3.3. Remove supplies from their outside (shipping/transport) containers before bringing into the operating room.

6.3.4. Cover soiled items during transport (in containers or case carts) from the individual operating room through the semi-restricted zone to a decontamination area for temporary storage before reprocessing.

6.3.5. All soiled items must be contained and are not stored in the same area with clean or sterile items.

6.3.6. Keep storage areas clean, orderly and not overcrowded.

6.3.7. Check integrity of packs – damaged or moistened packs wraps may render contamination of the sterile supply.

6.3.8. Monitor expiry dates to ensure sterility and integrity of the packing.

6.3.9. Store only minimal items in the operating room.

6.4. Surgical attire

6.4.1. Surgical attire included: scrub suits, hair coverings, mask, protective eyewear, fluid resistant gowns, aprons and shoe covers worn in the surgical environment.

6.4.2. Surgical environment

6.4.2.1. Restricted areas: operating room, procedure rooms and scrub sink area: all personnel entering this area should wear surgical attire.

6.4.2.2. Semi-restricted area – comprises the peripheral support area within the surgical suites. These are designated hallways, storage area, work area and corridor leading to the surgical suite. Surgical attire to be worn by OR personnel.

6.4.2.3. Non-restricted areas – areas where street clothes are allowed and this include patient entrance, staff entrance and staff lounges.

6.4.3. Uniform

6.4.3.1. Attire

i. Attire is laundered by an institution-approved laundry.

ii. Wear surgical scrub to reduce exogenous contamination (shedding) by covering as much of the body as possible.

iii. Scrub pants and tops are preferable to dresses to prevent particles shed from the legs and perineum from contaminating the surgical field.

iv. Change surgical attire when soiled, contaminated or penetrated by blood or other potentially infectious materials.

v. At no time should an OR staff or doctor use a scrub suit outside the OR.

vi. No scrub suit shall be worn from home to duty and duty to home.

6.4.3.2. Hair Cover

i. Don hair covering first so that the hair does not fall on clean scrub clothing.

ii. Head gears must completely cover the hair (including head, neck and beard).

iii. Hoods can be used to cover facial hair.

6.4.3.3. Gloves

i. Wear gloves when contact with blood first or other potentially infectious materials, mucous membranes and non-intact skin could occur.

ii. The preferred method of changing contaminated gloves is for one member of the sterile team to glove the other. If this

is not possible, change the contaminated glove by open-glove method. (once the original sterile gloves are donned, the gown cuff must be considered contaminated.)

iii. Report to employee health clinic any suspected latex allergy or contact dermatitis.

6.4.3.4. Gown

i. The gown is considered sterile from the operative area up to within 1 to 2 inches of the neckline and around the sleeves down to the level of the sterile field and up to 2 inches above the elbows.

ii. The scrubbed person shall don a sterile gown and sterile gloves from a sterile field and must function within a sterile field only.

iii. Consider back of gown contaminated because of inability for constant supervision by the scrubbed person.

6.4.3.5. Masks

i. Masks are worn at all times in the restricted zone of the operating room.

ii. Mask must fit tightly, covers the nose and mouth completely and must not interfere with breathing, speech or vision.

iii. Mask must be adjusted to prevent venting from the sides.

iv. Mask is changed between patients and not to be worn outside the surgical department.

6.4.3.6. Eye shield

i. Wear eye protection when there is risk of body fluid splash into the eyes.

6.4.3.7. Shoe cover

i. Shoe covers do not play a vital role in preventing SSI but are indicated only as possible barriers against body fluids.

ii. Shoes worn in from outside must be covered with disposable shoe covers for protection from soiling.

iii. Shoe covers are worn only once and removed upon leaving the restricted area.

6.5. Surgical Hand Srub

6.6. Surgical Skin Preparation

6.6.1. Patients must be bath or shower with antiseptic agent at least the night before the day of surgery.

6.6.2. Hair can be cleansed / decontaminated along with the skin. If necessary, clipping just before the time of surgery is preferred method and should take place outside the room where surgery is accomplished.

6.6.3. Have prepping agents available based upon the procedure.

6.7. Surgical Drapes

6.7.1. Use sterile barrier materials (surgical drapes) to cover the unsterile area immediately to and surrounding the operative site and these defines the sterile field.

6.8. Environmental Cleaning

6.8.1. OR Cleaning and Sanitation

6.8.1.1. Preparation of the theater prior to first case

i. Horizontal surfaces including OR tables and surgical lights will be damp dusted with a towel moistened with an approved disinfectant.

ii. Floor will be mopped with approved hospital disinfectants.

iii. Put hamper bags on a hamper holder.

6.8.1.2. Cleaning during the case

i. Immediately decontaminate areas contaminated with blood during the ongoing procedure.

ii. Sponges are discarded to the regulated medical waste (yellow bag) after counting.

iii. Use gloves in counting and discarding used sponges and gauzes.

iv. Clean exterior portion of the specimen container with blood stains prior to leaving the OR.

v. Clean instruments used with blood stains and debris while the procedure is ongoing to minimize transport of microorganisms on the functioning instruments.

vi. Do spot cleaning as necessary.

vii. Discard disposable anesthesia circuits, masks and ETT after use.

6.8.1.3. Terminal cleaning

i. At the end of the procedures, OR scrub/utility area and corridors are cleaned.
ii. Clean furniture, equipment including its wheel and casters and surgical spotlights. Clean walls, ceilings and floors also.
iii. Clean doors and door knobs.
iv. Floods are flooded with approved cleaning solution and vacuumed.
v. Use of mat at the patient entrance is not advised as this will accumulate more dust.
vi. Do not use scrub sinks to clean equipments and instruments.

6.8.1.4. Cleaning other areas

i. Clean hallways daily with approved antiseptics.
ii. Sinks, workrooms, storage areas, shelves and drawers are cleaned daily.
iii. Keep clean OR lounges and closets at all times.
iv. Cleaning equipments are cleaned every after use and kept dry by the cleaning staff in a designated janitorial storage.
v. Equipment such as portable X-ray machines, fracture tables, video towers and etc. is cleaned according to the manufacturer's instructions.

6.8.1.5. Anesthesia Machine

i. Clean anesthesia machine in between patient use.
ii. Anesthesia trolley is prepared and maintained before commencing the procedure.
iii. Sterile water is required in suctioning patients to prevent further respiratory tract infection.
iv. Unused fluids are discarded after each use.
v. Suction tubings and containers are changed after each surgical procedure.
vi. Disposable respiratory equipment are not to be re-used.

6.9. Environmental Safety

6.9.1. Linen Management

6.9.1.1. Used linen after the operating procedure is kept at the dirty corridor of OR.

6.9.1.2. Bag linen soiled with blood and body fluids/substances in a yellow plastic for the laundry personnel to be aware during the collecting.

6.9.1.3. Unsoiled linen can be placed into an ordinary hamper bag.

6.9.2. Laboratory Specimens

6.9.2.1. Place laboratory specimens in a well-constructed container with secure lids to prevent from leaking during transport.

6.9.2.2. Mark laboratory request for HIV with biohazard sign to ward laboratory technicians on handling.

6.9.3. Sharp and Needle Accidents

6.9.3.1. Utilize a "Neutral Zone" when passing a scalpel blade or any sharp instrument from the scrub to the surgeon to avoid accidental injuries. Hand to hand passage is no longer advised due to the risks of sharp exposure during the intraoperative procedure.

6.9.3.2. Report the incident immediately to the Infection Control Team for management and follow up.

6.9.3.3. Know the serological status of the patient and inform ICD.

6.9.3.4. Follow the sharp and needle stick policy for more guidelines.

6.9.4. Spillage

6.9.4.1. On procedures where there is no spillage of potentially infectious materials (e.g. blood, body fluids, irrigation) mopping of the floor may be eliminated.

6.9.5. Waste Disposal

6.10. Sterilization and disinfection (instruments and equipments)

6.10.1. No sterilization shall be done in OR.

6.10.2. However, during emergency situations, flash sterilization is implemented.

6.11. Asepsis in the Surgical Environment

6.11.1. Principles and maintenance of aseptic practice are vital in operating room and the following are recommended:

6.11.1.1. Create and maintain a sterile field in which surgery can be performed safely.

i. Scrubbed persons wear sterile gowns and gloves.

ii. Use drapes to establish a sterile field.

iii. Use sterile items only within sterile field.

6.11.1.2. Open, dispense and transfer all item introduce onto a sterile field.

6.11.1.3. Constantly monitor and maintain a sterile field.

6.11.1.4. All personnel moving within or around a sterile field shall do so in a manner that maintains the integrity of the sterile field.

6.11.1.5. Keep policies and procedures for basic aseptic technique readily available within the practice setting

6.12. <u>INFECTIOUS DISEASE PRECAUTIONS</u>:

6.12.1. Pulmonary TB, Chicken Pox and Gas Gangrene

6.12.1.1. Notify OR personnel prior to surgery so that appropriate precautionary measures are prepared.

6.12.1.2. Unless emergency or medically indicated, no surgery is performed with suspected or proven tubercular disease because ORs are maintained at a positive pressure environment.

6.12.1.3. Designate rooms for infectious cases only.

6.12.1.4. Schedule infectious cases as last case of the day.

6.12.1.5. Keep to a minimum OR staff who will assist in the procedure.

6.12.1.6. Disposable and single use supplies are recommended.

6.12.1.7. Non-disposable anesthesia instruments used by the patient should be cleaned placed in double bag (yellow) and send to CSSD for sterilization.

6.12.1.8. Thoroughly disassemble gas machine, wash with approved disinfectants and put to drying.

6.12.1.9. Contain linen in yellow bag then send to laundry door washing.

6.12.1.10. Management of TB

i. Perform procedures if possible, in operating rooms with anterooms.

ii. In no anterooms, keep doors to the OR closed and traffic into and out of the room be kept to a minimum to reduce the frequency of opening and closing the door.

iii. Perform procedure at a time when other patients are not present in the operative suite and when minimum number of the personnel are present (e.g. at the end of the day)

iv. Place a bacterial filter on the patient's endotracheal tube to reduce the risk of contaminating the anesthesia equipment.

v. Recover patient in the operating room.

6.12.1.11. <u>Exposure to HBsAg, HCV, HIV (for HCWs)</u>

i. Standard precaution must be observed at all times.

ii. Personnel with exudative lesions or weeping dermatitis should refrain from any type of OR procedures until conditions resolves.

iii. Use masks and protective eyewear for procedures which are likely to generate droplets of blood and body fluids.

iv. Wear fluid resistant gowns or plastic aprons during procedures that are likely to generate splashes of blood or body substances to the body.

v. Double glove is recommended to have second line of protection in case outer glove is torn.

vi. Sharp instruments should not pass to and from surgeon's assistant, surgical practice should be examined to minimize risk of sharp injuries.

vii. Personnel should know their serologic status for Hepatitis B and C and HIV.

viii. All OR staff must be vaccinated with Hepatitis B vaccine.

ix. Measure to consider during work practice:

a. There must be audible announcement communication between surgeon and scrub nurse during surgical procedures.

b. Shield blades, used instruments or other blade removal accessories to attach and remove blades from handles.

c. Avoid using hands as instruments, use hands free technique for passing or a No Pass, No Touch Technique in an established neutral zone by using a metal tray and avoid blind handling of instruments.

d. Remove sharps not use from the sterile field.

e. Do not recap needle and if necessary, use a scoop technique or a single-handed technique.

f. Manipulate needle with forceps rather than gloved hands.

g. Handle carefully opened glass ampoules from anesthesia use. All medications shall be removed from ampoule and the ampoule shall be placed into biohazard sharps container.

x. Handling of infectious waste

a. Dispose in a single yellow bag all waste materials contaminated with excretion, exudates or secretions.

b. Tightly seal all sharps contained in a rigid, puncture-resistant containers when ¾ full.

c. Place contaminated gloves, clothing and other materials in an appropriately labeled bag or container until it is disposed of.

d. All biohazards waste bags must be tied off before transport.

e. Handle contaminated laundry as little as possible and place in a water-soluble bag.

7.0. RELATED POLICY / CROSS REFERENCES:

7.1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 29: Isolation precautions. In APIC Text of infection control and epidemiology (4th ed.).
7.2. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 68: Surgical Services. In APIC Text of infection control and epidemiology (4th ed.).
7.33. HICPAC /CDC Guidelines for Isolation precautions: Preventing Transmission of Infectious Agents in Healthcare Setting 2007.
7.4 4. The Sydney Children's Hospitals Network. Operating Suite Guidelines, Infection Control, Standard and Additional Precautions for the Operating Suite - CHW. Practice Guideline No: 0/C/09:8063-01:01. http://www.schn.health.nsw.gov.au_policies/pdf/2009-8063.pdf.

8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	13 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA T. LINAN NURSING DIRECTOR	15 MAR 2019
	Ms. Mary Belle Cabonias	OR Head Nurse		11 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No: 13-R-M-0046092	MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		MAR 2019
Approved by	Dr. Adil Moted Bin Omairah	Hospital Director		14 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC38-1	April 1, 2012
Replaced by	IDP-IC-008(2)	April 1, 2014
Deleted	IDP-IC-008(3)	April 1, 2016
Replaced by New Policy and Procedure	IDP-IC-008(4)	April 1, 2019

Attachment 1 : Operating Room Checklist

وزارة الصحة
Ministry of Health

AFIF GENERAL HOSPITAL
Infection Control Department

No.	Infection Control Checklist for OR:	YES	NO	Remarks
1.	Standard precautions are applied for all invasive procedures.			
2.	Positive pressure is maintained in OR.			
3.	Non-scrubbed personnel are wearing long-sleeved over coats that are buttoned or snapped closed during use.			
4.	The surgical mask is fully covering mouth & nose.			
5.	The surgical mask is fully covering mouth & nose.			
6.	Only authorized staffs are allowed in the Transition area and semi restricted area.			
7.	Complete surgical attire is used in restricted areas.			
8.	Operating room environment is clean and dustless.			
9.	No closets are built inside theaters.			
10.	Minimal items are stored in Operating Room.			
11.	Policies are there regarding traffic control in Operating Room.			
12.	Air is introduced near the ceiling and exhausted near the floor.			
13.	There is clear separation between restricted and non-restricted areas of operating room.			
14.	Large scrubbing sinks are available at entry to each Operating Theater.			

Checked by:_____

Date: _____

INTERDEPARTMENTAL POLICY AND PROCEDURE (IDP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
INFECTION CONTROL - LABORATORY			IDP-IC-009(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	IDP-IC-009(3)	7
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To provide clear guidelines for those personnel involve in collecting, transporting and processing of specimen in the laboratory and provide standard rules of practice to prevent infection transmission among personnel and patient.

1.2. To prevent exposure to Hepatitis B Virus (HBV), Hepatitis C Virus (HICV), Human Immuno- Deficiency Virus (HIV) and other etiologic agents transmitted by blood/body fluids.

1.3. To provide safe workplace for healthcare workers.

1.4. To reduce or eliminate the exposure of laboratory workers to infectious materials.

2.0 DEFINITION (S):

2.1. Antibiogram- is a method of testing the efficacy of antibiotics by introducing an antibiotic into the middle of a bacteria laden Petri disk.

2.2. Engineering controls are methods that contains or remove the hazard such as sharps disposal containers, self-sheathing needles, safer medical devices such as sharps with engineered sharps injury protections and needleless systems.

3.0 POLICY STATEMENT(S):

3.1. It is mandatory that all clinical laboratory healthcare workers and those involved in the collection, transporting and processing of specimens shall understand the high risk of infection transmission in the laboratory.

3.2. All laboratory healthcare workers shall follow the clinical laboratory standard rule of practice in order to prevent infection transmission among personnel.

4.0 EQUIPMENTS /MATERIALS /FORMS:

4.1. Personal Protective Equipments -gown / face shields/ goggles/gloves/facial mask or N-95.

4.2. Tourniquet/syringes/alcohol swab

5.0 ROLES AND RESPONSIBILITIES:

5.1. It is the responsibility of the laboratory personnel to:

5.1.1. Handle patient and staff specimens to maximize the likelihood of a microbiological diagnosis.

5.1.2. Developed guidelines for appropriate collection, transport, and handling of specimen and ensuring laboratory practices to meet appropriate standards.

5.1.3. Perform antimicrobial susceptibility testing following methods and provide summary reports of prevalence of resistance.

5.1.4. Timely communicate the results to the Infection Control Department.

6.0. PROCEDURE:

6.1. Activities of the Laboratory which may influence infection risk to patients and personnel:

6.1.1. During collection of specimens:

6.1.1.1. Wear appropriate barrier techniques during patient contact and specimen collection.

6.1.1.2. Practice aseptic technique and use disposable equipment between patients, during site preparation and procedure and consider the following:

i. Avoid multiple venipunctures at the same site.

ii. Use sterile collecting vials.

iii. Avoid collection from intravascular lines.

6.1.1.3. Dispose of syringes with needles without recapping into the sharp waste container.

6.1.1.4. Disinfect tourniquet with 10% isopropyl alcohol after patient used.

6.1.1.5. Place clean gauze pads over the puncture site if necessary.

6.1.1.6. Use proper sealed container and placed in a designated specimen rack or specimen box.

6.1.1.7. Place requisitions with each section completed on the outside of the plastic specimen bag.

6.1.1.8. If a leaking container cannot be discarded because it is impossible to obtain another specimen from the patient, place it in a leak-proof bag and attach the requisition to the outside of the bag with a paper clip.

6.1.1.9. If the requisition form is soiled with blood/body fluid, discard and fill out a new one.

6.1.2. During transport and receiving of specimen:

6.1.2.1. Wear gloves during routine transport of specimens except if leak is discovered during transit or is contaminated with blood or body fluid.

6.1.2.2. Perform hand hygiene after handling the specimen and before touching any other surfaces.

6.1.2.3. Place specimen in appropriate carry basket so as to ensure that the integrity of the specimen container is maintained.

6.1.2.4. Do not carry specimens in envelop paper bags or in pockets.

6.1.2.5. Do not keep containers with liquid specimen in an upright position.

6.1.2.6. Deliver specimens within the shortest possible time.

6.1.2.7. Laboratory personnel receiving sample ensures that there is no visible contamination in the container or requisition form.

6.1.2.8. Reject specimen received with grossly leaking container. If only the external surface is contaminated, use alcohol 1:10 dilution of 5.25% bleach to decontaminate.

6.1.3. During processing of specimens

6.1.3.1. Direct mouth pipetting not be performed with any specimen.

6.1.3.2. Do not prepare bacterial suspensions by bubbling air through liquid by means of a pipette.

6.1.3.3. Clean any spill of blood and body fluids immediately. Keep spill kit ready in each section

6.2. Control measures for prevention of laboratory associated nosocomial infection.

6.2.1. Engineering Controls

6.2.1.1. Only needle–locking syringes or disposable syringe needle units are used for injection or aspiration of infectious materials.

6.2.1.2. Needles and syringes or other sharps are used only when there is no alternative, such as for parenteral injection, phlebotomy or aspiration of fluid from diaphragm bottles.

6.2.1.3. Plastic ware is substituted for glassware whenever possible.

6.2.1.4. Carefully placed used disposable needles in conveniently located puncture – resistant containers.

6.2.1.5. Place cultures, tissues and specimens of body fluids in containers that prevent leakage during collection, transport, handling, processing, storage or shipping.

6.2.1.6. Materials with high concentrations or large volumes of infectious agents may be centrifuged in the open laboratory only if sealed rotor heads or centrifuge safety cups are used and if these rotors or safety cups are opened only in a biologic safety cabinet.

6.2.1.7. Keep eyewash facility readily available.

6.2.1.8. Do not use rugs because proper decontamination following a spill is difficult.

6.2.1.9. Laboratory furniture must be sturdy and spaces between benches, cabinets and equipment are accessible for cleaning.

6.2.1.10. Fit open windows with fly screens.

6.2.2. Standard rule of practice:

6.2.2.1. All procedures are performed carefully to minimize splashes or aerosols.

6.2.2.2. Work places are decontaminated at least once a day and after any spill of viable material.

6.2.2.3. All cultures, stocks and other regulated wastes are decontaminated before disposal by an approved decontamination method such as autoclaving.

6.2.2.4. Materials to be contaminated outside of the immediate laboratory are placed in a durable, leak proof container and closed for transport.

6.2.2.5. Personnel are advised of special hazards and are required to read and follow instructions on practices & procedures.

6.2.2.6. Encourage personnel to receive appropriate training on potential hazards associated with the work involved, the necessary precautions to prevent exposures, and exposure evaluation procedures. Annual updates or additional training as necessary for procedural or policy changes are to be provided.

6.2.2.7. A high degree of precaution always is taken with any contaminated sharp items, including needles and syringes, slides, pipettes, capillary tubes & scalpel.

6.2.2.8. Broken glassware is not handled directly by hands but by mechanical means (use-brush, dustpan, forceps and tongs).

6.2.2.9. Laboratory equipment and work surfaces are decontaminated with an appropriate disinfectant routinely, especially after contamination by infectious material, (e.g., spills, and splashes).

6.2.2.10. Contaminated equipment is decontaminated before it is sent for repair or maintenance or packaged for transport.

6.2.2.11. Used disposable needles are not bent, recapped or manipulated by hands before disposal; these are to be discarded on sharp containers.

6.2.2.12. Practice standard precautions at all times due to concepts that all patients and laboratory specimens are potentially infectious and capable of transmitting infection.

6.2.3. Health care worker protection and safety:

6.2.3.1. Personnel must receive appropriate immunizations or test (e.g., tuberculin skin test).

6.2.3.2. Medical evaluation, surveillance and treatment are provided as appropriate and written records are maintained following any exposure to infectious agents.

6.2.3.3. Persons who wear contact lenses in laboratory must wear goggles or face shield.

6.2.3.4. Protective laboratory coats or uniforms designated for laboratory use are worn while in the laboratory.

6.2.3.5. Protective clothing is removed and left in the laboratory before leaving for non-laboratory areas.

6.2.3.6. Gloves are worn when hands might contact infectious materials, contaminated surfaces or equipment and are not worn outside the laboratory. (Never washed or reused gloves).

6.2.3.7. All laboratory personnel must wear proper Personnel Protective Equipment to protect themselves from blood borne pathogens.

i. Gloves, masks and gowns are used to protect workers from contact with blood and other potentially infectious materials.
ii. N95 masks – is recommended when working with Mycobacterium tuberculosis.
iii. Cover the feet with shoe covers to protect the skin from spills.

iv. All PPE– including laboratory coats must not be worn outside the laboratory areas.

6.3. Infectious Waste Management:

6.3.1. Discard sharps into appropriate puncture – resistant containers.

6.3.2. Safely pour large quantities of body fluid waste in most facilities down the sink.

6.3.3. Incinerate materials of high-water content or density; whereas microbiology laboratory waste may be autoclaved.

6.3.4. Large quantities of body fluid waste must be disposed of in the laboratory. (i.e., urine specimens & vacuumed tubes of blood).

6.3.5. Blood and body fluids may be disposed of by pouring them down a sink into the sanitary sewer. (Extreme caution to prevent splashing must be exercised in such disposal of fluid. Mask, fluid proof apron and gloves shall be used).

6.3.6. Do not use sinks for biohazardous waste disposal for hand washing.

6.3.7. Do not discard microbiologic in sanitary sewers. This waste must be autoclaved or incinerated before disposal.

6.3.8. All autoclaves must be checked at least weekly for proper function using a biologic indicator.

6.3.9. Store as brief as possible all laboratory wastes that needs to be stored before disposal. Properly identify the site with a biohazard label access restricted and be located near the site of generation.

6.3.10. Locate near the treatment site or loading dock long term storage for waste awaiting offsite disposal. Thoroughly clean the area each time it is emptied of waste contents.

7.0. RELATED POLICY / CROSS REFERENCES:

7.1 Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014) Chapter 108: Laboratory Services. In APIC Text of infection control and epidemiology (4th ed.).

8.0. APPROVAL:

	Name	Title	Signature	Date
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	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No: 13-R-M-0046094	MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		19 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		24 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC 39-1	April 1, 2012
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INTERDEPARTMENTAL POLICY AND PROCEDURE (IDP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
INFECTION CONTROL – LABOUR AND DELIVERY			IDP-IC-010(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	IDP-IC-010(3)	5
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1 To provide guidelines in order to decrease the risk of nosocomial infection & workplace acquire infection while supporting maternity care.

2.0 DEFINITION (S):

2.1 ***Intrapartum Infection***: infection occurring as a result of exposure to organisms at the time of labor and delivery.

2.2 ***Perinatal Infection***: infection acquired during the period from shortly before to shortly after birth.

2.3 ***Puerperal sepsis***: is a serious form of septicemia contracted by a woman during or shortly after childbirth, miscarriage or abortion.

2.4 ***Vaginal access***: a device introduced into the reproductive organ.

3.0 POLICY STATEMENT(S):

3.1 All Healthcare workers in Labor/Delivery room shall understand the risk of infection inherent in Labor /Delivery practices, to prevent infections among patients and employees.

4.0 EQUIPMENTS /MATERIALS /FORMS:

4.1 PPE-Personal Protective Equipments

4.2 Disinfectant

4.3 Delivery Instrument

5.0 ROLES AND RESPONSIBILITIES:

5.1 Healthcare personnel:

It is the responsibility of the nurse on duty and any other healthcare workers involve in the management of patient care to implement and adhere to infection prevention and control practices in relation to standard precautions.

5.2. Infection Preventionist:

Monitor compliance to infection prevention and control practices.

6.0. PROCEDURE:

6.1. Environmental Design

6.1.1. Single rooms are preferred for infection prevention & control reasons, as women in Labor may present with infection requiring isolation (e.g., TB, varicella).

6.1.2. Each Room must have hand washing facilities and Private toilet.

6.1.3. Provide areas for safe management of soiled equipment / instruments and Bedpans.

6.2. Cleaning, Disinfection and / or Sterilization of Equipment between Patients.

6.2.1. No sharing of equipment / instruments between patients without appropriate Cleaning.

6.2.2. Items such as thermometers, glucometers, electrocardiograms leads, Stethoscope and fetal monitoring belts must be cleaned and disinfected after each used.

6.2.3. Ultrasound equipment must be cleaned disinfected after each patient.

6.2.4. Probes used transvaginal must be covered with a condom or sterile gloves & receive a minimum of high – level disinfection between patients.(The use of condom does not negate the need for high – level disinfection).

6.2.5. Incubators, bassinets must be thoroughly cleaned between each used with disinfectant (Chlorhexidine).

6.3. Procedures Associated with Risk if Infection in Gynecology/Obstetric Procedures. Trans Vaginal Procedures:

6.3.1. Use antiseptic solution for hand washing /or alcohol gel.

6.3.2. Use appropriate Personal Protective Equipment e.g., gown, gloves, cap and mask.

6.3.3. Use antiseptic agent for perineal cleansing.

6.3.4. Use sterile instruments & aseptic techniques.

6.3.5. Limit number of vaginal examinations.

6.3.6. Instruct patient about careful perineal hygiene measures (wipe from front to back in cleansing of perineum.

6.3.7. Clean & disinfect all shared equipment between patients.

6.4. Environmental Control

6.4.1. Clean up blood & other body fluids promptly.

6.4.2. Cleaning of patients' bed between patients by hospital approved disinfectant solution.

6.4.3. Dispose of trash & infectious waste appropriately.

6.4.4. Segregated and collected fetal and placental organs in red bags and stored in a special refrigerator in obstetric department until they are properly disposed in accordance to Islamic sharia (law).

6.4.5. No permission to do CSSD procedure in patient care areas.

6.5. Provide Special Attire to reduce microbial shedding into the delivery environment.

6.5.1. Short – sleeved scrub attire for personnel assigned to the delivery area.

6.5.2. All PPE must be worn (including cap) correctly to protect health care provider, woman & newborn.

6.5.3. Masks are to cover the nose & mouth & to be discarded as soon as they are removed.

6.5.4. For surgical procedures sterile long-sleeved gowns should be worn by all personnel who have direct contact with the sterile field during vaginal deliveries, obstetric surgical procedures & surgical procedures in the nursery.

6.5.5. Wearing aprons or gowns made of impervious material is recommended to protect the healthcare workers from body fluid exposure.

6.5.6. Gloves shall be worn when handling the placenta or neonate until blood & amniotic fluid have been removed from the newborn.

6.5.7. Care provider shall wash hands before & after removing gloves & immediately wash any skin surfaces that become contaminated with body fluids.

6.5.8. Caps, beard covers (for bearded persons) & masks shall be worn during certain surgical procedures such as umbilical useful catheterization in the newborn.

6.5.9. All spills of blood & body fluids, whether on the floor, walls, furniture or counters must be cleaned decontaminated immediately using the appropriate disinfecting solution, 1:10 dilution.

7.0. RELATEDPOLICY / CROSS REFERENCES:

7.1. Association for Professionals in Infection Control & Epidemiology, Inc. 2005. Chapter 38: pp.38-1 to 38-21.

7.2. KSMC-DPP-ICP-005-(V2)- Infection Control - Labor and Delivery Room-2010.

7.3. GCC- guidelines for infection control 2009 and 2012 (2nd edition)

7.4. GCC-CDC-ICM-2013.

8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
Reviewed by	Dr. Waleed Al Shiekh	Head of OB-GYNE	Dr. Walid Elshikh Ob / Gyn Consultant	06 MAR 2019
	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR	10 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No: 13-R-M-0046094	09 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		21 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		24 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC 40-1	April 1, 2012
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INTERDEPARTMENTAL POLICY AND PROCEDURE (IDP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
INFECTION CONTROL – DENTAL			IDP-IC-011(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	IDP-IC-011(3)	6
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To educate all staff at the dental department about infection control and prevention activities that may influence or decrease the risk of infection to themselves as well as to patients they may come in contact with.

2.0 DEFINITION (S):

2.1. N/A

3.0 POLICY STATEMENT(S):

3.1. All Dental staff shall familiarize themselves with this policy and the procedures outlined, and it must be implemented in dental practice to prevent nosocomial transmission of blood borne and other infectious diseases.

4.0 EQUIPMENTS /MATERIALS /FORMS:

4.1. PPE-Mask/Gloves- Sterile/ Non Sterile / utility / Gown / Apron /Lab. Coat / Goggles

4.2. Alcohol Swab

4.3. Syringes

4.4. Dental instruments

5.0 ROLES AND RESPONSIBILITIES:

5.1. All healthcare workers in dental department are responsible to observe strict compliance to infection prevention and control measures in reducing or preventing the transfer of infectious microorganisms during dental services.

6.0. PROCEDURE:

6.1. All staff working in Dental department must report to the Employee Health Clinic (EHC) to receive all appropriate immunizations based on the latest recommendations as well as their medical history and risk for occupational exposure.

6.2. Hand Hygiene

6.3. Personal Protective Equipment (PPE):

Remove barrier protection, including gloves, mask, eyewear, and gown before departing work area (e.g., dental patient care, instrument processing and laboratory areas).

6.4. Change masks between patients or during patient treatment if the mask becomes wet.

6.4.1. Aseptic Technique for Parenteral Medications:

6.4.1.1. Do not administer medication from a syringe to multiple patients, even if the needle on the syringe is changed.

6.4.1.2. Use single-dose vials for parental medications when possible.

6.4.1.3. Do not combine the leftover contents of single use vials for later use.

6.4.1.4. The following apply if multidose vials are used:

i. Cleanse the access diaphragm with 70% alcohol before inserting a device into the vial.
ii. Use a sterile device to access a multiple-dose vial and avoid touching the access diaphragm.
iii. Both the needle and syringe used to access the Multidose vial shall be sterile.
iv. Do not reuse a syringe even if the needle is changed.
v. Discard the multidose vial if sterility is compromised.

6.5. Preventing Exposures to Blood and Other Potentially Infectious Material (OPIM)

6.6. For Oral Surgical Procedures:

6.6.1. Perform surgical hand antisepsis by using an antimicrobial product before donning sterile gloves.

6.6.2. Use sterile saline or sterile water as a coolant/irrigated when performing oral surgical procedures.

6.6.3. Use devices specially designed for delivering sterile irrigating fluids (e.g. bulb syringe, single-use disposable products, and sterilize tubing).

6.7. Handling of Biopsy Specimens

6.7.1. During transport, place biopsy specimens in a sturdy, leakproof container with the biohazard symbol.

6.7.2. If a biopsy specimen container is contaminated, clean and disinfect the outside of a container or place it in an impervious bag labeled with the biohazard symbol.

6.8. Handling of Extracted Teeth

6.8.1. Dispose of extracted teeth as regulated medical waste unless returned to the patient.

6.8.2. Do not dispose of extracted teeth containing amalgam in regulated medical waste intended for incineration.

6.8.3. Clean and place extracted teeth in a leak proof container, labeled with a biohazard symbol, and maintain hydration for transport to educational institutions or a dental laboratory.

6.8.4. Heat-sterilize teeth that do not contain amalgam before they are used for educational purposes.

6.9. For Patient with Mycobacterium Tuberculosis (TB):

6.9.1. Educate all staff regarding the recognition of signs, symptoms, and transmission of TB.

6.9.2. Conduct a baseline TST, preferably by using a two-step test, for all staff that might have contact with persons with suspected or confirmed active TB

6.9.3. Defer elective dental treatment until the patient is noninfectious.

6.10. For all Healthcare Workers in Dental Laboratory:

6.10.1. Use PPE when handling items received in the laboratory until they have been decontaminated.

6.10.2. Before they are handled in the laboratory, clean, disinfect, and rinse all dental prostheses and prosthodontic materials. (e.g., impressions, bite registrations, occlusal rims, and extracted teeth) by using a hospital disinfectant having at least an intermediate-level (i.e., tuberculocidal claim) activity.

6.10.3. Clean and heat-sterilize heat-tolerant items used in the mouth (e.g., metal impression trays and face-bow forks).

6.10.4. Follow manufacturer's instructions for cleaning and sterilizing or disinfecting items that become contaminated but do not normally contact the patient (e.g., burs, polishing points, rag wheels, articulators, case pans, and lathes).

6.10.5. If manufacturer instructions are unavailable, clean and disinfect with hospital disinfectant with low (HIV, HBV effectiveness claim) activity, depending on the degree of contamination.

6.11. For Healthcare Workers in Dental Radiology:

6.11.1. Wear gloves when exposing radiographs and handling contaminated film packets.

6.11.2. Use other PPE (e.g., protective eyewear, mask, and gown) as appropriate if spattering of blood or other body fluids is likely.

6.11.3. Use heat-tolerant or disposable intraoral devices whenever possible (e.g., film-holding and positioning devices).

6.11.4. Clean and heat-sterilize heat-tolerant devices between patients at a minimum, high-level disinfect semi critical heat-sensitive devices, according to manufacturer's instructions.

6.11.5. Transport and handle exposed radiographs in an aseptic manner to prevent contamination of developing equipment.

6.12. Dental Unit Waterlines, Biofilm, and Water Quality

6.12.1. Use water that meets regulatory standards for drinking water (i.e., ≤500 CFU/L of heterotrophic water bacteria) for routine dental treatment output water.

6.12.2. Consult with the dental unit manufacturer for appropriate methods and equipment to maintain the recommended quality of dental water.

6.12.3. Discharge water and air for a minimum of 20-30 seconds after each patient, from any device connected to the dental water system that enters the patient's mouth (i.e., hand pieces, ultrasonic scalers, and air/water syringes.

6.13. For Dental Hand pieces and Other Devices Attached to Air and Waterlines:

6.13.1. Clean and heat-sterilize hand piece and other intraoral instruments that can be removed from the air and waterlines of dental units between patients.

6.13.2. Follow the manufacturer's instructions for cleaning, lubrication, and sterilization of hand pieces and other intraoral instruments that can be removed from the air and waterlines of dental units.

6.13.3. Do not surface-disinfect, use liquid chemical sterilants or ethylene oxide on hand pieces and other intraoral instruments that can be removed from the air and waterlines of dental units.

6.14. Environmental Infection Control:

6.14.1. Follow the manufacturers' instructions for correct use of cleaning and disinfecting products.

6.14.2. Do not use liquid chemical sterilants/high-level disinfectants for disinfection of environmental surfaces (clinical contact or housekeeping).

6.14.3. Clinical Contact Surfaces

6.14.3.1. Use surface barriers to protect clinical contact surfaces, particularly those that are difficult to clean (e.g., switches on dental chairs) and change surface barriers between patients.

6.14.3.2. Clean and disinfect clinical contact surfaces that are not barrier-protected, by using a hospital disinfectant with a low-(i.e., HIV and HBV label claims) to intermediate-level (i.e., tuberculocidal claim) activity after each patient.

6.14.4. Housekeeping Surfaces

6.14.5. Spills of Blood and Body Substances

6.14.6. Regulated Medical Waste

6.15. Medical Conditions, Work-Related Illness, and Work Restrictions

6.16. Sterilization and Disinfection of Patient-Care Items

6.17. Storage Area for Sterilization Items and Clean Dental Supplies

6.17.1. mplement practices on the basis of date or event-related shelf-life for storage of wrapped, sterilized instruments and devices.

6.17.2. Even for event-related packaging, at a minimum, places the date of sterilization, and if multiple sterilizers are used in the facility, the sterilizer used, on the outside of the packaging material to facilitate the retrieval of processed items in the event of a sterilization failure.

6.17.3. Examine wrapped packages of sterilized instruments before opening them to ensure the barrier wrap has not been compromised during storage.

6.17.4. Reclean, repack, and resterilize any instrument package that has been compromised.

6.17.5. Store sterile items and dental supplies in covered or closed cabinets, if possible.

6.17.6. Do not store instruments in an area where contaminated instruments are held or cleaned.

6.17.7. Train dental staff to employ work practices that prevent contamination of clean area.

7.0. RELATEDPOLICY / CROSS REFERENCES:

7.1. Morbidity and Mortality Weekly Report (MMWR) Guidelines for Infection Control In Dental Health Care Setting-2003.

7.2. Association of Professionals in Infection Control and Epidemiology, Inc. 2005. Chapter 51.

7.3. Center for Disease Control and Epidemiology (CDC) Guidelines for Disinfection and Sterilization Healthcare facilities – 2008 pp. 88-89.

8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	13 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR S.C.# 06-RN-8386	06 MAR 2019
	Dr. Sattam	Head of Dental Unit		11 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No: 13-R-M-0046094	13 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		19 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		24 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

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INTERDEPARTMENTAL POLICY AND PROCEDURE (IDP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
INFECTION CONTROL - PHYSIOTHERAPY			IDP-IC-012(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	IDP-IC-012(3)	4
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To provide an effective infection control practices for any procedures to be done in Physiotherapy Department.

2.0 DEFINITION (S):

2.1. ***Physiotherapist-*** is a health care profession which uses physical therapeutic means and exercises to ensure maximum recovery and early independence of clients. The treatment of the client is usually prescribed to relieve pain, restore normal function and strength, prevent further injury and promote healthy living and lifestyles.

3.0 POLICY STATEMENT(S):

3.1. The physiotherapy staff shall understand infection control activities related to their work and preventive measures to apply in order to safeguard the patients and themselves from exposures to hospital infection.

4.0 EQUIPMENT/MATERIAL/FORMS:

4.1. Hand hygiene facilities

4.2. Physical therapy equipment

4.3. Personal Protective Equipment (PPE)

5.0 ROLES AND RESPONSIBILITIES:

5.1. It is the responsibility of the Infection Prevention Control Department and the Quality

Management Department to review and monitor the implementation of this policy for effective compliance.

6.0. PROCEDURE:

6.1. Facility Design and Management to provide Quality Care

6.1.1. Sink must be located in between of two working areas/stations that is accessible and will be able to encouraged hand washing.

6.1.2. Place alcohol gel dispenser into each working area that is convenient to all.

6.1.3. Supplies / Equipments needed for hand hygiene must be readily available at all times.

6.1.4. Sufficient space for all the equipments such as treatment tables and supplies shall not delay or block that progress the access to the sink.

6.1.5. Cover all mat and table top with impermeable materials that can be cleaned frequently with detergent and disinfectant.

6.1.6. Clean and organize all equipments in store room (clean equipments in clean store room; dirty equipments in dirty utility).

6.2. Personnel Safety Measures

6.2.1. Physiotherapist must be thoroughly aware of standard precaution and expanded precaution.

6.2.2. All staff shall receive Hepatitis B vaccination depending on the screening profile.

6.2.3. Healthcare Workers must be aware of the concept of aseptic technique, handling sharps, proper usage of single-use equipments and reprocessing procedures.

6.2.4. Alert signs to those patients who is pregnant, have a pacemaker, transplant of any nature, HIV or Hepatitis, on long term medication or have any ongoing illness or health problem and advise the physiotherapist accordingly.

6.3. Hand Hygiene

6.4. Personal Protective Equipments (Barrier Precaution)

6.5. Duty of Care for Infected of Colonized Patient

6.5.1. Cover and contain patients with colonized wound infection during therapy. It would seem preferable to provide therapy for such patients in their room.

6.5.2. Cover infected wounds whenever possible during treatments, handle dressing by either forceps or gloved hands.

6.5.3. Patients who are colonized but not infected by MRSA; therapy can be done in the patient's room whenever is possible. It could be done in a shared facility as long as the therapist observes hand hygiene after patient contact.

6.5.4. Wash hands before and after treatment.

6.6. Hydrocollators

6.6.1. Hot packs

6.6.1.1. Drain unit once per month or if visibly soiled.

6.6.1.2. Water may be drained through drain valve located at rear bottom of unit.

6.6.1.3. Clean unit with a mild non-abrasive stainless-steel cleanser and rinse thoroughly.

6.6.1.4. Wash hot packs with mild soap and water; however, the simplest method of cleaning is to keep them immersed in the hydrocollator at a preset temperature of 160 °F (71 °C).

6.6.1.5. Hot packs that leak or become visibly thinner should be replaced.

6.6.1.6. Hot packs have an expected use period of approximately one year.

6.6.1.7. Launder thick towels not in direct patient contact for wrapping hot packs once per week or when visibly soiled.

6.6.1.8. Thin towels in direct patient contact for wrapping hot packs are single use only and are laundered between patients.

6.6.2. Cold packs:

6.6.2.1. Drain unit once per month, or if visibly soiled, or if there is excessive frost build-up.

6.6.2.2. Water may be drained through drain valve located at rear bottom of unit.

6.6.2.3. Wash down using warm water only.

6.6.2.4. Cold packs may be cleaned with mild soap and water or disinfected with 70% alcohol if soiled with blood or body fluid.

6.6.2.5. Cold packs which are leaking should be repaired or discarded.

6.6.2.6. Thin towels in direct patient contact for wrapping cold packs are single use only and are laundered between patients.

6.6.2.7. Dust and lint in the condenser fins should be cleaned once per month.

6.6.2.8. The condenser can be reached by removing the rear access panel.

6.7. Cleaning the Environment

7.0. RELATED POLICY / CROSS REFERENCES:

7.1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 66: Rehabilitation services. In APIC Text of infection control and epidemiology (4th ed.).

7.2. Australian Guidelines for Aquatic Physiotherapist working in and/ or managing hydrotherapy pools (2nd ed.) 2002.

8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA HEAD INFECTION CONTROL	MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR S.C.# 06-RN-8386	5 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA HEAD INFECTION CONTROL	3 MAR 2019
	Dr. Ahmed Hassan	Medical Director	MEDICAL DIRECTOR	0 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		4 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

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INTERDEPARTMENTAL POLICY AND PROCEDURE (IDP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
POST MORTEM CARE			IDP-IC-013(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	IDP-IC-013(3)	6
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To protect healthcare workers from contact exposure to blood and other body fluids at the time of death, during transport and management of dead bodies at the mortuary department.

1.2. To prevent transmission of infection to all morgue personnel and family members of expired patients.

2.0 DEFINITION (S):

2.1. ***Cadaver*** – patient's dead body

2.2. ***Mortuary*** – a place where dead bodies of patients are stored in the refrigerator at the required temperature storage.

2.3. ***Post Mortem*** – the entire spectrum of care of the body from the time of death through autopsy.

2.4. ***Autopsy*** – examination of a dead body usually with dissection sufficient to determine the cause of death

3.0 POLICY STATEMENT(S):

3.1. Appropriate handling of deceased patients shall be implemented to minimize, risk of exposure to infectious agents. Risks involve:

3.1.1. Sharp injury

3.1.2. Blood and body fluids splash exposure to mucous membranes.

3.1.3. Aerosolization of potentially infected material at time of autopsy during sawing of bones and dissection of lung tissue, etc.

3.1.4. Contact with body substances during procedures such as autopsies or embalming.

3.2. Mortuary location and design shall be considered and these include the following measures:

3.2.1. The location shall avoid the need for transporting bodies through public areas.

3.2.2. Refrigerated body storage facilities shall be maintained at an internal temperature of 4°C (39°C) and must not be used for any purpose other than the storage of bodies.

3.2.3. Longer term body storage (if necessary) shall be in a freezer maintained at -20°C (68°F).

6.2.4. All refrigerators/freezers shall be monitored and fitted with alarms that operate 24 hours a day.

3.2.5. Mortuary design shall minimize manual handling of bodies.

3.2.6. Where autopsies are performed, designated room(s) shall be used with negative air pressure ventilations.

3.2.6.1. Should include a minimum of 6 to 12 air cycles per hour.

3.2.6.2. Direct exhaust of jar to the outside or passed through a HEPA filter if air is recalculated.

3.2.6.3. Exhaust direct air (and aerosol) away from healthcare workers performing the procedure (e.g. exhaust downwards)

3.3. Standard precautions shall be applied at all times along with expanded precautions known to be in effect prior to death.

3.3.1. Protective clothing shall be worn by staff and visitors while in the mortuary.

3.3.2. Clinical waste

3.3.2.1. Clinical waste shall be placed on hazardous waste bags (yellow bags) and shall be incinerated.

3.3.2.2. Human tissues shall be placed on double red bag and shall be buried.

3.3.3. Linen

3.3.3.1. Soiled linen should be placed in a plastic bag to prevent leakage and sent for laundering in the usual manner.

3.3.4. Sharps

3.3.4.1.1. Disposed in puncture proof containers.

4.0 EQUIPMENTS /MATERIALS /FORMS:

4.1. Hand hygiene materials

4.2. Personal protective equipments

4.3. Hospital approved disinfectants

4.4. Instrument used for autopsy

5.0 ROLES AND RESPONSIBILITIES:

5.1. It is the responsibility of Infection Control Department and Total Quality Management department to review and monitor implementation of this policy for effective compliance.

5.2. It is the responsibility of the Nursing Department and the Mortuary to adhere strictly to this policy.

6.0. PROCEDURE:

6.1. Management of dead body (clinical area)

6.1.1. Assemble all necessary equipments after physician declares death.

6.1.2. Nurses wear personal protective equipment and adhere to standard precautions.

6.1.3. Remove tubings, catheters, intravenous lines, surgical drains and disposed in infectious bags (yellow bag).

6.1.4. Dispose needles and sharp objects in puncture proof containers.

6.1.5. Dress all wounds and plug all orifices of the dead body with absorbent material to contain body fluids.

6.1.6. Tie feet and hands together.

6.1.7. Affix body labels to forehead, chest and toes.

6.1.8. Close mouth and eyelids with jaw band.

6.1.9. If no lesions are present, sponge the entire body with chlorox (hypochloride solution) in a 1:10 dilution (not to be done if skin lesions are present).

6.1.10. Wrap the body with white linen cloth ready for transport to the mortuary. Place body in appropriate size, thick and leakproof body bag (if available).

6.1.11. Nurse in charge notifies the mortuary supervisor about the dead body and inform if the deceased harbor an infectious agent.

6.1.12. Transport the deceased body to the mortuary through the ward trolley by cleaner accompanied by mortuary staff on duty.

6.2. Management of dead body (mortuary)

6.2.1. Receipt of dead body documented in the mortuary logbook.

6.2.2. Body is kept in the mortuary refrigerator if the relatives are not around at the time of death while relatives are being contacted. Mortuary refrigerator is kept at 1.1 to 4.4°C (34 to 40°F).

6.2.3. Dead bodies wash by body washers in the mortuary.

6.2.4. Body is taken for burial by relatives.

6.3. General good infection prevention and control practices to be considered while in the mortuary:

6.3.1. Eating, drinking and smoking not allowed in any work areas but should be in designated staff rooms.

6.3.2. Personal belonging not allowed into dirty areas.

6.3.3. Unauthorized persons are not allowed to enter the mortuary unless permission obtained from the mortuary.

6.3.4. Screening and vaccination against hepatitis B advised to all personnel.

6.3.5. Organized workflow to minimize unnecessary movement particularly from dirty to clean areas.

6.3.6. Avoid bringing the hands (gloved or otherwise) into contact with the face or mucous membrane of the eyes, nose and mouth.

6.3.7. Wear gloves when contacts with an enshrouded body, remove gloves after use, discard in appropriate receptacle and perform hand hygiene.

6.3.8. Wash hands and leave dirty area before cleaning or adjusting lenses if anyone is wearing contact lenses.

6.3.9. Decontaminate all instruments and surfaces contaminated during postmortem procedures with hospital approved disinfectant.

6.3.10. Keep interruptions during post mortem examination to an absolute minimum.

6.3.11. Maintain a high standard of infection prevention and control practice at all examinations on the assumption that all cases are potentially infectious.

6.3.12. Ensure that liquid dispersion and splashing is minimized during examination techniques.

6.4. Infection prevention and control practices during post mortem (autopsy):

6.4.1. Wear proper PPE when performing or assisting in postmortem procedures.

6.4.2. When patients are highly suspected or known to have an open pulmonary or laryngeal tuberculosis and an autopsy is requested:

6.4.2.1. Only staff who have BCG vaccine or who are Mantoux positive should care for the patient.

6.4.2.2. Wear a disposable N95 mask.

6.4.3. Inform the mortuary staff if the deceased had SARS in order to avoid unnecessary contact with the deceased patient. Bury the patient as soon as possible to reduce risk to staff.

6.4.4. In the event that an accidental inoculation injury occurs, the following procedure must be performed:

6.4.4.1. Wash well with soap and warm water and cover the injury with a waterproof dressing.

6.4.4.2. Fill up an incident form and keep a record of the name of the deceased on whom the post mortem examination was being performed.

6.4.4.3. Report to Infection Control Department.

6.4.5. Suture incisions and wash the body with a disinfectant (1:10 solution of 5.25% sodium hypochlorite) and enclosed in a leak proof bag

6.5. Post mortem care of tissue obtained during autopsy:

6.5.1. Air dry all contaminated items retained for evidence at room temperature, wrapped for storage and placed in a bag labeled with biohazard sticker then locked in secured area.

6.5.2. Place all tissues retained for evidence in standard solutions and store in a secured area.

6.5.3. Label all containers with biohazard stickers and wipe with disinfectant before being place in storage area.

6.6. Management of spills

6.6.1. Manage blood spills with a sodium hypochlorite solution (1:10 dilution) prepared freshly each day.

6.6.2. Cleaning of used instruments to the central supply and sterilization department for cleaning disinfection.

6.7. Cleaning the mortuary room

6.7.1. Thoroughly clean the room and post mortem tables, dissection surface and scales, with sodium or hypochlorite solution (household bleach 1:50 dilution) prepared freshly each day in a large plastic container.

6.7.2. If chlorine is used on metal surfaces, immediately rinse to avoid corrosion.

6.7.3. Always use disposable cloths for cleaning in the mortuary.

6.7.4. Wear a plastic apron and disposable latex gloves for cleaning procedures.

6.7.5. Clean and disinfect waterproof boots after each procedure.

7.0. RELATED POLICY / CROSS REFERENCES:

7.1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 65: Postmortem care. In APIC Text of infection control and epidemiology (4th ed.)

7.2. GCC infection control manual 3rd edition 2018.

8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Ms. Mirriam Licuanan	Infection Control Nurse	MIRRIAM P. LICUANAN RN 0281568 #484454	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR S.C.# 0006386	06 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA رئيس مكافحة العدوى	11 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No: 13-R-M-0006094	19 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairy	Quality Director	Mr. Khalid B. Al Mutairi Gen. Director	21 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		24 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC 46-1	April 1, 2012
Replaced by	IDP-IC-013(2)	April 1, 2014
Deleted	IDP-IC-013(3)	April 1, 2016
Replaced by New Policy and Procedure	IDP-IC-013(4)	April 1, 2019

INTERDEPARTMENTAL POLICY AND PROCEDURE (IDP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
MANAGEMENT OF VANCOMYCIN RESISTANT ENTEROCOCCI			IDP-IC-014(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	IDP-IC-014(3)	5
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL MEMBERS OF INFECTION CONTROL COMMITTEE AND INFECTION CONTROL PRACTITIONERS.	

1.0 PURPOSE:

1.1 To prevent the spread of VRE amongst patients and healthcare workers.

1.2 To isolate only those patients who are known carriers.

1.3 To describe the steps needed to prevent the spread of VRE.

2.0 DEFINITION (S):

2.1. ***VRE*** refers to vancomycin-resistant enterococcus. The enterococcus is a germ or bacterium that lives in the intestinal tract and in the female genital tract. Vancomycin is an antibiotic that can be used to treat those infections. However, some enterococcus germs are no longer killed by vancomycin and are known as vancomycin- resistant enterococcus or VRE. These germs are often resistant to many antibiotics in addition to vancomycin.

2.2. ***Broad Standard Precautions*** mean that gloves shall be worn for all patient contacts as well as contact with the patient's environment.

3.0 POLICY STATEMENT(S):

3.1 Special and additional management shall be performed for patients who are found positive to Vancomycin Resistant Enterococcus (VRE) in order to prevent contamination of the environment and possible healthcare associated infection transmission to another patient.

4.0 EQUIPMENTS /MATERIALS /FORMS:

4.1 Hand hygiene facilities

4.2 Personnel Protective Equipment (Gloves/gown/mask)

5.0 ROLES AND RESPONSIBILITIES:

5.1 Healthcare personnel:

It is the responsibility of the nurse on duty and any other personnel involve in the management of patient care to implement and adhere to infection prevention and control practices in relation to standard precautions.

5.2 Infection Preventionist:

Monitor and ensure that VRE precautions are implemented and followed correctly.

6.0. PROCEDURE:

6.1.0 SCREENING FOR VRE :

6.1.1. Screen all patients who are:
6.1.1.1. Known to be previously VRE positive within the past 6 months or more.
6.1.1.2. Roommates exposed to VRE-positive patients for more than 48 hours.
NB: The accompanying requisition should request "VRE screen."
6.1.2. Sites to screen:
6.1.2.1. Peri-anal area.

6.1.2.2. Wounds and catheter exit sites.

6.2.0 MICROBIOLOGY LABORATORY MUST:

6.2.1 Notify the ward of positive VRE cultures.

6.2.2. Notify the Infection Preventionist (IP) of all positive VRE cultures.

6.3.0 MANAGEMENT OF PATIENTS WHO ARE UNDERGOING A VRE SCREEN:

6.3.1. A single room is not needed.
6.3.2. Maintain standard precautions and strict hand hygiene practices.

6.3.3. If patient is VRE positive, follow the management protocol outlined below.

6.4.0 MANAGEMENT OF VRE-POSITIVE PATIENTS:

6.4.1 Nursing:

6.4.1.1. Request a single room with a bathroom from the Admission Office.
6.4.1.2. Initiate contact isolation precautions in addition to standard precautions.
6.4.1.2.1. Place a contact precautions sign on the outside of the room door.

6.4.1.2.2. Maintain strict hand hygiene technique.
6.4.1.2.3. Wear a gown and gloves when entering the patient's room.
6.4.1.2.4. Cohort non-critical items such as thermometers and pressure cuffs with the patient.
6.4.1.2.5. Store a minimum amount of supplies in the patient's room.

6.4.1.2.6. Use an isolation cart for extra supplies (outside the room).

6.4.1.3. Screen all patients who have shared a room with the VRE-positive patient for more than 48 hours for VRE.
6.4.1.4. Limit the patient's activities outside of the room/ward; refer to the policy on Transporting Patients on Isolation Precautions.
6.4.1.5. Ensure concurrent and terminal cleaning of isolation room and equipment as Policy on Housekeeping.
6.4.1.6. Handle/discard contaminated items as per Standard Precautions; refer to policy on Standard Precautions.
6.4.1.7. Cohort nursing staff providing direct patient care.
6.4.1.8. Notify receiving departments/wards (e.g., Radiology, Endoscopy, Clinics, OR) of the patient's isolation status when the patient must be transported for treatment/tests. Refer

to policy on Transporting Patients on Isolation Precautions.

6.4.1.8.1Maintain contact isolation until infection control has been consulted regarding the

discontinuation of isolation.

6.4.2 Medical:

6.4.2.1. Seek Infectious Diseases Consultants as needed.
6.4.2.2. Be judicious with antibiotic use, especially that of vancomycin.

6.4.2.3. Discharge the patient if his/her medical condition allows.

6.5.0 DISCONTINUATION OF CONTACT ISOLATION;

6.5.0.1. Discontinue isolation of VRE-positive patient after consultation with the IP and the attending physician.
6.5.0.2. Criteria for discontinuing isolation
6.5.0.2.1. Three consecutive negative cultures from all previously positive sites and stool/peri-rectal swabs. If the first set of samples which was taken 3 days off antibiotics is negative, repeat cultures 48 hours later

6.5.0.2.2. Patients should be off antibiotic therapy for a minimum of 72 hours prior to screening.

6.6.0 SCREENING OF HCWS AND THE ENVIRONMENT:

6.6.0.1. Do not screen HCWs or the environment because it is not typically indicated and incurs unnecessary costs.

6.6.0.2. Consult the Infection Preventionist (IP) before such measures are taken.

6.7.0 OUTBREAK MANAGEMENT:

6.7.0.1 Active surveillance will be coordinated by Infection Prevention & Control as needed and will require cooperation from Medical, Nursing, Laboratory, and other departments.

7.0. RELATED POLICY / CROSS REFERENCES

7.1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 29: Isolation precautions. In APIC Text of infection control and epidemiology (4th ed.).
7.2. HICPAC/CDC Guidelines for isolation precautions: preventing transmission of infectious agents in healthcare setting, 2007.

8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	05 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR	06 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	05 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR	11 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		19 MAR 2019
Approved by	Dr. Adil Moteb Bin omairah	Hospital Director		14 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC 49-1	April 1, 2012
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Deleted	IDP-IC-016(3)	April 1, 2016
Replaced by New Policy and Procedure	IDP-IC-014(4)	April 1, 2019

INTERDEPARTMENTAL POLICY AND PROCEDURE (IDP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
INFECTION CONTROL – RADIOLOGY DEPARTMENT			IDP-IC-015(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	IDP-IC-015(3)	4
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		RADIOLOGY DEPARTMENT	

1.0 PURPOSE:

1.1. To outline infection control practices for the Department of Radiology.

2.0 DEFINITION (S):

2.1. N/A

3.0 POLICY STATEMENT(S):

3.1. This policy is designed to provide specific recommendations for the safe care of patients during delivery of radiology services. It is the policy of Afif General Hospital to strictly follows the guidelines written herein.

4.0 EQUIPMENT/MATERIAL/FORMS:

4.1. N/A

5.0 ROLES AND RESPONSIBILITIES:

5.1. N/A

6.0. PROCEDURE:

6.1 BASIC PRINCIPLES APPLICABLE IN IMAGING SERVICES:

In diagnostic radiology, the scope of procedures performed range from basic radiographs to more complex studies such as ultrasound or computed tomography (CT) with varying contact times. Many imaging studies involve the administration of contrast agents through an intravenous, enteral, or percutaneous route.

6.1.1. The Radiology Department will be notified about the isolation status of the patient by the referring department prior to transport.
6.1.2. Screen patients with illness that can be spread thru airborne route (e.g., Mycobacterium tuberculosis (MTB) patients) and identified to the radiology department. Train the staff to recognize symptoms that may put them at risk (e.g., patient with a cough) and be knowledgeable regarding appropriate infection control procedures, including isolation and barrier precautions. Refer to policy on Standard Precautions.
6.1.3. Evaluate to determine if patients with illness needing airborne isolation can be seen in the radiology department versus portable examination that can be performed in the patient's room.
6.1.4. If transport to the radiology department is necessary, provide patients with surgical mask to wear for transport to and from the department.
6.1.5. Instruct the patients to cover their nose and mouth with a tissue when coughing or sneezing and to be separated as much as possible from other patients. Refer to cough etiquette in policy on Standard Precautions.
6.1.6. Evaluate promptly patients who manifest symptoms suggestive of pulmonary tuberculosis and do not allow then to congregate in common waiting areas.
6.1.7. In Radiology Departments where patients with MTB are frequently treated, a negative pressure ventilation room is recommended. But in ambulatory settings, where such patients are infrequently seen, additional engineering controls, such as a portable HEPA filter may be needed to supplement the general ventilation in commonly used areas.
6.1.8. Reserve certain times of the day for accommodating patients with active TB to prevent exposing patients infected with human immunodeficiency virus (HIV) or other immunocompromised persons to MTB.
6.1.9. Observe basic infection control precautions and isolation precautions between inpatient and ambulatory care areas. Isolation procedures must be able to follow the patient across the continuum of care and at the same time be appropriate for the environment.
6.1.10. Clean and disinfect surfaces that come in direct contact with patients with clean sheets or table paper and/or clean and disinfect between patients.
6.1.11. Clean and disinfect the surrounding regularly with hospital-approved disinfectants at the end of each day or shift or more frequently if visibly soiled/contaminated.
6.1.12. Practice standard precautions when performing invasive procedures such as angiography to prevent the risk for exposure to blood-borne pathogens via injuries from contaminated sharps. Refer to the policy on Standard Precautions.
6.1.13. Adhere to strict aseptic technique whenever invasive procedures are performed. Refer to the policy on Aseptic Technique.
6.1.14. To prevent sharp injury, employ engineering controls such as procedures to minimize handling of contaminated sharps, especially not recapping used sharps, and using safety vascular access devices.
6.1.15. Dispose contaminated sharps and used syringes appropriately in puncture-resistant disposable containers. In the nuclear medicine department, where unsealed radioisotopes are used, emphasize safe handling of the radiologic materials and contaminated sharps.
6.1.16. The potential exists for procedure-related transmission of microorganisms if sonographic probes are not cleaned in between uses. Endo cavitary ultrasound probes, including vaginal ultrasound probes, require cleaning and high-level disinfection between uses because of contact with mucosal surfaces. Use of condom-type covers is important adjunct in preventing gross contamination of such items.
6.1.17. Clean and disinfect reusable equipment use for invasive sterile procedures. For radiology centers who perform their own sterilization using table top sterilizers, IP must make sure that they have well-documented processes for training personnel and monitoring sterilization results?

6.2 INTERVENTIONAL RADIOLOGY:

6.2.1 Standard Precautions:

6.2.1.1. Adhere to standard precautions in any setting in which exposure to contaminated bodily fluid may occur. The interventional operator should wear a surgical scrub suit, a lead coat with a minimum of 0.5 mm lead, and a sterile surgical tunic that is changed between cases.
6.2.1.2. Wear surgical cap, facemask, and eye protection (should be led lined).

6.2.2 Procedural preparation:

Most interventional techniques are performed using a conscious sedation technique. Anesthetic support is available for major interventional cases. Infection control recommendations:
6.2.2.1. Preparation of the patient's skin prior to surgery with clipping for hair removal.
6.2.2.2. Perform a surgical hand wash prior to an interventional procedure. Provide automatic controls and below-operated liquid disinfectant dispensers over a deep sink.
6.2.2.3. Clean and disinfect the interventional room after each procedure. Perform terminal cleaning at the end of each operating day to minimize the degree of environmental contaminants by microorganisms, dirt and dust. This process should start at the highest level from the ceiling and lighting fixtures to all room equipment and progress to ground level fixtures and the floor.

7.0. RELATED POLICY / CROSS REFERENCES:

7.1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014) Chapter 58: Imaging Services and Radiation oncology. In APIC Text of infection control and epidemiology (4th ed.).
7.22. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 60: Interventional Radiology. In APIC Text of infection control and epidemiology (4th ed.).

8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
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	Dr. Hamada Mostafa	Head Radiology	DR. HAMADA MOHAMED Radiology Specialist	MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No: 13-R-M-0046094	9 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		14 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC 56-1	April 1, 2012
Replaced by	IDP-IC-017(2)	April 1, 2014
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INTERDEPARTMENTAL POLICY AND PROCEDURE (IDP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
INFECTION CONTROL – EMERGENCY ROOM			IDP-IC-016(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	IDP-IC-016(3)	12
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		EMERGENCY ROOM DEPARTMENT	

1.0 PURPOSE:

1.1. To educate ER personnel to the dangers they face from communicable diseases and the precautions adopted to provide a means to minimize / eliminate health risks.

1.2. To prevent infection from occurring in the patient, emergency room personnel, and their families.

1.3. The intention of these guidelines is to provide a best practice guide for infection prevention and control procedures in ER and to minimize or eliminate infection transmission and employee exposure to communicable diseases.

1.4. These guidelines may be used as a resource to guide practice as well as to provide a temple for clinical audit.

1.5. HCW's must be familiar with the Standard Precautions and should be followed during all care encounters. Measures to protect staff and other patients will be according to hospital infection prevention and control policies.

2.0. DEFINITION (S):

2.1. N/A

3.0. POLICY STATEMENT(S):

3.1. Post-Exposure

3.1.1. If ER personnel have been exposed to blood or any potentially infectious substance, that person shall notify his/her supervisor as soon as possible. All exposures shall be documented.

3.1.2. ER personnel must ensure that any personal cuts, abrasions, wounds, etc. are always properly dressed for their own protection and patient's as well.

3.1.3. Personnel who had open lesions will not be permitted to provide patient care.

3.1.4. Upon notification of an exposure, the Infection Control Officer shall document the exposure in the personnel medical record and document it separately for department records, no matter how minor the exposure.

3.1.5. Also, at this time the Infection Control Officer shall initiate and investigate of the exposure incident to be completed as soon as possible and coordinate any follow-up activities and inform the exposed personnel any required follow-up treatment.

3.1.6. If the emergency personnel have a verified exposure, the source patient has to be tested for Hepatitis B, C and HIV.

3.1.7. Result of the source individual's testing shall be made available to the exposed personnel. This shall be done personally by the Infection control officer and should not go through the ranks to keep the information confidential. Through the results of the source individual test are known, at no time should any further information about the patient be disclosed.

3.1.8. If the exposure is in conjunction with an injury such as a laceration or a puncture (needle stick) & it should be handled as follows:

3.1.8.1. The physician shall draw blood from the exposed personnel

3.1.8.2. The blood will be tested for HBV, HCV & HIV.

3.1.8.3. A medical history shall be obtained from the exposed personnel.

3.1.8.4. The wound shall be cleaned and treated.

3.1.8.5. A tetanus shot, or any additional treatment will be given if the physician feels that it is needed.

3.1.9. Blood work will then be drawn at 3 months, 6 months & 12 months and tested for HBV, HCV & HIV.

3.1.10. If the emergency personnel have an occupational exposure to airborne pathogens from a known or suspected source, it should be handled as follows:

3.1.10.1. The supervisor should be notified and notify the Infection control officer to find out whether the patient is at risk for Airborne infection.

3.1.10.2. Interview with the patient.

3.1.10.3. Interview of the patient's physician.

3.1.10.4. Review of the patient's chart.

3.1.11. It is determined that personnel were exposed to an at –risk patient diagnosed or presumed to have PTB, then a TB smear and a culture be taken from the patient to checked and see whether airborne pathogens exist.

3.1.12. Personnel exposed to patients confirmed to have other airborne pathogens (chicken pox, measles, etc.) would be prescribed treatment as per recommendation of the treating physician.

3.1.13. Blood and body fluid contamination can facilitate transmission of disease as can sharps and another hazard encountered at the scene of trauma.

3.1.14. It is essential of ER personnel to consider all patients' blood and body secretions as infectious, to follow standard precautions, engage in vigilant hand hygiene and to use PPE and barrier techniques accordingly.

3.1.15. If you are exposed to blood or body fluids:

3.1.15.1. Remove soiled clothing immediately and wash exposed area with soap and water.

3.1.15.2. Flush eyes or mouth with liberal amount of water only.

3.1.15.3. Report immediately to the Infection Control Department

3.1.15.4. Note the severity and type of exposure.

3.1.15.5. Fill the Blood or Body fluid from the exposure.

3.1.15.6. History will be obtained to know the Hepatitis screening of the exposed personnel.

3.1.15.7. Blood shall be withdrawn for HBV, HCV & HIV status.

3.1.15.8. If the criteria for post-exposure prophylaxis are met, Doctor will then decide of what prophylaxis will then give.

3.1.16. Visitors continue to be restricted in the patient care areas of the ER and will be asked to stay in the waiting areas. Patient care staff may make exceptions under special circumstances as appropriate.

3.2. Infection Prevention and Control Measures:

3.2.1. Hand washing procedures and indications

3.2.1.1. Performed frequently to protect both patients and healthcare providers.

3.2.1.2. Hands are wash before and after touching patients, before and after don gloves, eating, performs invasive procedures, accidental soiling with body substances, before and after using the bathroom, etc. (Pls. see indications for Hand washing).

3.2.1.3. When hand washing facilities are not available, alcohol hand rub should be use.

3.2.2. Proper use of PPE (gloves, masks, eye protections, etc.,) and when to wear them.

3.2.2.1. Gloves

i. Gloves are worn for anticipated contact with all body substances.

ii. Disposable gloves are to be worn over the gown sleeves.

iii. Clean gloves are put on immediately before contact with the patient's mucous membranes or open skin and before initiating any emergency care tasks.

iv. Gloves are changes between patients and between certain sites of the same patient (e.g., rectal to oral contact), before beginning care to another patient.

v. Contaminated gloves are removed and discarded into an appropriate waste container and shall not be washed or decontaminated for re-use.

vi. Disposable gloves should be replaced as soon as possible when contaminated or torn, punctured, or when their ability to function as a barrier is compromised.

3.2.2.2. Gowns

i. All disposable gloves used on any incident, when removed, are to be placed in the medical waste bag. The bag is to be sealed and disposed of properly.

ii. Gowns/Plastic aprons are to be used to cover areas of the skin or clothing that are likely to become soiled with body substances during patient procedures or care. After use, they should be disposed into a medical waste bin.

iii. If a garment is penetrated by blood or other potentially infectious materials, the garment(s) shall be removed immediately or as soon as possible.

3.2.2.3. Masks

i. Facial barriers – includes masks, glasses/goggles and face shields should be worn whenever splashing of body substances into the mouth, nose or eyes are likely to occur.
ii. Masks are also used for certain droplet diseases such as Meningococcal meningitis, N95 respirator for tuberculosis.
iii. Personnel are required to use masks, protective eyewear, face shield when providing emergency care to a patient's airway.
iv. N95 respirator should be placed on a patient who is coughing or is suspected of having active tuberculosis or meningitis.
v. All emergency personnel involved with patient care for such individuals should also don masks.
vi. Other barriers includes hair cover, shoe covers and boots which may be used when extensive exposure to body fluids may occurs (e.g., multiple traumas).

3.2.3. Special rooms – for patients with active tuberculosis, primary Varicella, measles, mumps and rubella, a private room with negative air pressure is preferred.

3.2.4. Sharp management

3.2.4.1. Preventing injuries from contaminated sharp reduce the risk of exposure to blood borne diseases such as HIV, Hepatitis B & HCV.

3.2.4.2. Discard all used sharps such as scalpels, blades, syringes with needles into rigid impervious puncture-resistant containers; the container should be available at point of use.

3.2.4.3. Do not place needles or sharps in wastebaskets or leave them at patient's bedside.

3.2.4.4. Do not recap or bend needles.

3.2.4.5. Forceps may be used to removes contaminated needles or knife blades or broken glassware.

3.2.4.6. Needles should be removed from suture materials before tying knots.

3.2.4.7. Sharp instruments should not be passed from hand to hand.

3.2.4.8. Whenever possible, inform others as to the location of contaminated sharps in order to injury to co-workers.

3.2.4.9. Containers must be discarded when (three quarters full). They must not overfill.

3.2.5. Linen on ER stretchers should always be changed between patients/ preferable disposable sheets.

3.2.5.1. If the linen becomes soiled with blood or other potentially infectious materials, it should be properly placed in a linen bag at the location where it was removed to prevent leakage and should not be stored or rinsed in the location of use. The bag must be properly marked as biohazard with the appropriate symbol.

3.2.6. Eating / Drinking

3.2.6.1. Eating, drinking, smoking, applying cosmetics and handling contact lenses are prohibited in areas where there is a reasonable likelihood of exposure.

i. Food and drinks shall not be kept on countertops or bench tops where blood or other potentially infectious materials are present.

3.2.7. Specimen

3.2.7.1. Blood specimen or other potentially infectious materials should be placed in container to prevent leakage during collection, handling, processing, storage and transport.

3.3. Emergency clean up

3.3.1. HCW's must be familiar with and follow standard precautions during all patient care encounters.

3.3.2. Appropriate cleaning of environment surfaces (housekeeping surfaces and medical equipment surfaces) is critical for maintaining safe and healthy environment for patients, staff and visitors.

3.4. Patient Care Practices

3.4.1. In ER, patients are clustered in common waiting areas. The range of potentially transmissible infections depends on the population served (the case mix) and the type of services offered.

3.4.2. Patients may be at risk for droplet-borne or airborne diseases in these settings. Patient may also transmit undiagnosed diseases when first presented to ER.

3.4.3. Transmission is enhanced by closed quarters in waiting areas and may be enhanced by movement of patients between waiting areas exam rooms, and diagnostic areas.

3.4.4. Patients should be assessed as soon as possible for signs and symptoms of potentially communicable illnesses including productive cough, diarrhea, undiagnosed rash, bleeding, wound or eye drainage.

3.4.5. Patients with potentially communicable illnesses should be placed in a separate room as soon as possible.

3.4.6. Patients with cough or respiratory symptoms should be provided with surgical masks and instructed to cover coughs sneezes with a tissue and to be instructed about proper disposal of tissues and washing.

3.4.7. Patients with known disease or a high index of suspicion for Tuberculosis (TB), Chicken pox, Measles, Mumps, Rubella, or bacterial meningitis should wear surgical mask and should be placed in a separated room with the door closed and as appropriate sign to inform staff of the necessary precautions.

3.4.8. For cases of suspected TB, allow the room to ventilate for some time before using again. Ideally, a room with a negative pressure and dedicated ventilation to outdoors or a high efficiency particulate air filtration (HEPA) unit should be available.

3.5. Housekeeping Surfaces

3.5.1. A policy outlining environmental care standards and the responsibilities of housekeeping /maintenance personnel and clinic staff should be established.

3.5.2. Plans for new construction or renovation should be reviewed by the IPCD, Infection prevention and control safety issues including structural design, traffic flow, air handling, sink placement and plumbing should be considered.

3.5.3. It is the responsibility of all personnel to ensure that their work area be maintained in clean and sanitary condition.

3.5.4. Floors should be cleaned in a regular basis when soiling or spills occurs and when a patient is discharged.

3.5.5. Low level hospital grade disinfectants are appropriate products for floor care disinfections in ER.

3.5.6. Dust mopping is done prior to scrubbing or mopping floors to remove large portion of dirt, debris, and dust.

3.5.7. The single –bucket procedure for wet mopping is the most common and practical method, the disinfectant solution must be changed every three to four rooms.

3.5.8. Disinfectant solution should be change immediately after cleaning blood spills such as those associated with trauma or accidental spills.

3.5.9. Daily laundering of mop heads in a hot water cycle followed by thorough drying is recommended.

3.5.10. Other horizontal surfaces such as counters and stretcher mattresses and equipments should be cleaned and disinfected with a hospital approved disinfectant and used in accordance with the manufacturer's recommendation.

3.5.11. An acceptable alternative is to use disposable paper covering for each patient. Surfaces must be disinfected when the paper cover is torn, wet or visibly soiled and must be disinfected at least daily.

3.5.12. Clean cloth should be used for cleaning each room.

3.5.13. If curtains become visibly soiled, they should be immediately removed and machines wash.

3.5.14. Walls are spot cleaned of spills and completely cleaned when they are soiled.

3.5.15. All bins, cans, and similar receptacles intended for reuse which have a reasonable likelihood for becoming contaminated with blood or other potentially infectious materials should be inspected and decontaminated on a regular scheduled basis and as feasible upon visible contamination.

3.5.16. Equipment which may become contaminated with blood or other potentially infectious materials should be examined prior to putting it back in service and should be decontaminated as necessary

3.5.17. Each station will have a standard biohazard waste container for its storage. A biohazard bag must be placed in the container prior to storage of biohazard waste

3.5.18. Each station will allocate a specific area for cleaning contaminated equipment.

3.5.19. If disinfection is required to a piece of equipment, personnel should clean the item with soap and water, and then apply a disinfecting solution. Such solution as bleach and water at a 1:10 dilution ratio is acceptable to reduce the number of diseases producing organisms. After 24 hours this solution must be changed and re-mixed to be effective.

3.5.20. If high-level disinfection is required, personnel should use a commercial chemical liquid for the sterilization of equipment. This liquid should be used as per the manufacturer's instruction.

3.5.21. If disinfection is required, personnel should don rubber / latex gloves and safety glasses before proceeding.

3.5.22. Hepatitis B vaccinations shall be offered to all personnel. It is the recommendation of this guideline that all personnel who have had all shots of Hepatitis B vaccination, series be tested for antibodies to reveal if the personnel is immune. If booster dose(s) is needed it shall be made available.

3.5.23. The Emergency Room should implement an integrated pest management plan (IPM).

3.6. Patient Care Equipments and Articles

3.6.1. Medical devices, equipment and surgical materials are divided into three categories:

3.6.1.1. **CRITICAL ITEMS** – are instruments or object that are introduced into normally sterile areas of the body (e.g.; surgical instruments cardiac catheters). Critical medical devices or patient-care equipments should always be sterilized.

3.6.1.2. **SEMI-CRITICAL ITEMS** – generally do not penetrate body surfaces but are in contact with mucous membranes. Such items include respiratory therapy equipment (e.g., laryngoscope and gastroscopy equipment).

ii. Semi-critical medical devices or patient-care should be introduced to a disinfection process.

iii. This disinfection should always be done between uses to reduce the risks of transmission of microorganisms to other patient. It is important that reusable items be cleaned thoroughly with a hospital approved disinfectant agent after each use.

iv. Patient care equipments intended for single use should not be reprocessed and used.

v. HCW's performing these procedures should demonstrate knowledge of proficiency in proper technique.

vi. Appropriate attire (e.g., gloves, goggles, gowns) must be worn during cleaning procedures.

vii. HCW's should understand the limitations of gowns, how to remove a gown that becomes grossly contaminated, and how to dispose of such gowns.

viii. Clean and sterile items may be stored together. Care should be taken to provide a dust-free dry storage environment.

3.6.1.3. **NON-CRITICAL ITEMS** – are those that do not touch the patient or touch only the intact skin. Such items include stethoscope, blood pressure cuffs, crutches, and other medical accessories. All these items are used routinely in the ER, and a clear understanding of these items are used routinely in the ER and a clear understanding of these categories is essential.

3.7. Medication Care

3.7.1. Medications used externally internally must be stored separately in designated and labeled areas.

3.7.2. Multi-dose vials should be labeled: multi-dose vials should be discarded when empty, when suspected or known contamination has occurred, or when the manufacturers; expiration date has reached (contact pharmacy department).

3.7.3. There should be a setting-specific procedure and assignment to monitor temperatures and clean refrigerator or freezers. In areas where refrigerators/freezers are not used on a daily basis, there should be a method to ensure cleaning and temperature stability.

3.8. Reporting Communicable Illnesses

3.8.1. Designated communicable diseases are timely reported to the Infection Control Practitioner assigned to be reported to MOH for the proper epidemiology protocols, monitoring and institution of control measures at local and national levels.

3.8.2. Communicable diseases forms provided by MOH should be filled and diagnostic laboratory tests results should be attached with the forms and to submit it to the Infection Control practitioner assigned who will forward them to the MOH.

3.9. visual triage:

3.9.1. There should be a respiratory visual triage at the entrance of the ER with a qualified staff available round the clock.

3.9.2. The staff should fill the visual triage checklist by asking from the pt.

3.9.3. The visual triage staff will guide the pt if the checklist score is 4 or more than 4.

3.9.4. The visual triage staff will provide surgical mask to the pt and advised as well show how to do the hand hygiene as well as about the cough etiquette.

3.9.5. The pt will go to the respiratory clinic with surgical mask for examination and the physician will apply the case definition for corona and if applicable will transfer the pt to single room isolation with heap filter in place at the head end of the bed.
For detail procedure regarding the corona follow the corona guidelines and policy.

3.9.6. The swab to be taken in single room isolation by trained staff with full PPE.

3.9.7. There should be separate waiting area for the respiratory pts with 1.2-meter distance apart between each pt.

3.9.8. The waiting area must have hand hygiene facility and tissue box as well as posters for cough etiquette and hand hygiene.

4.0. EQUIPMENT/MATERIAL/FORMS:

4.1. N/A

5.0. ROLES AND RESPONSIBILITIES:

5.1. It is the responsibility of ER personnel in-charge to strictly enforce this guideline.

5.2. It is the responsibility of all employees to comply with this policy.

5.3. It is the responsibility of all employees to learn the basics of infection control including modes of disease transmission and exposure risks. They have to deal with every patient as an infectious on first arrival to ER.

6.0. PROCEDURE:

6.1.N/A

7.0. RELATED POLICY / CROSS REFERENCES:

7.1. APIC – Association of Professionals in Infection Control and Epidemiology, 2017

7.2. GCC infection control manual 3rd edition 2018.

8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Ms. Mirraim Licuanan	Infection Control Nurse	MIRRIAM G. LICUANAN	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR	06 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	1 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR	19 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairy	Quality Director		1 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		4 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

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Initial Policy and Procedure	IC 57-1	April 1, 2012
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Deleted	IDP-IC-018(3)	April 1, 2016
Replaced by New Policy and Procedure	IDP-IC-016(4)	April 1, 2019

INTERDEPARTMENTAL POLICY AND PROCEDURE (IDP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
INFECTION CONTROL – AMBULATORY CARE			IDP-IC-017(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	IDP-IC-017(3)	4
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		OUT PATIENT DEPARTMENT	

1.0 PURPOSE

1.1. To be able to set guidelines necessary to control and prevent the spread of infection.

1.2. To protect the patient and promote optimum health of healthcare workers by protecting them from any possible risk of infection.

1.3. To protect patients and HCW's in a cost-effective manner whenever possible.

2.0 DEFINITION (S):

2.1. An ambulatory care practice setting provides direct health or wellness care services to patients or clients who do not remain overnight. Examples of these settings include:

2.1.1. Medical offices and clinics

2.1.2. Primary care clinics

2.1.3. Dental clinics

2.2. In ambulatory care settings, patients are often clustered in common waiting areas and move independently through office and clinic settings. This practice may increase the potential for communicable disease exposures, patients maybe at increased risk for droplet or airborne disease in these settings. Patients may also transmit undiagnosed communicable disease when first presented to the ambulatory care clinic.

3.0 POLICY STATEMENT(S):

3.1. Assessment and triage:

3.1.1. Symptom based evaluation allows appropriate triage and application of precautions to patients with diseases via the airborne or droplets route should be done before full diagnostic work-up.

3.1.2. Due to the above stated reason, patients should be assessed as soon as possible for signs and symptoms of potentially communicable illness evaluate includes productive cough, diarrhea, undiagnosed rash, bleeding and wound or eye drainage. Patients with these conditions should be placed in a separate exam room as soon as feasible.

3.1.3. Patients presenting with cough or respiratory symptoms should be provided with tissues or surgical masks and instructed to cover coughs and sneezes with a tissue and dispose of tissues properly.

3.1.4. Patients with suspected or known tuberculosis, chicken pox, measles, mumps, rubella or bacterial meningitis should wear a surgical mask and be placed in a separate room with the door closed. An appropriate sign should be placed on the door to inform all staff of necessary precautions.

3.2. Hand Hygiene

3.2.1. Handwashing should be emphasized since it is one of the most important measures for reducing the transmission of infections agents in healthcare settings.

3.2.2. Failure to wash hands has been associated with the transmission of infections in healthcare and in the community. Therefore, protocols outlining proper hand hygiene expectations are extremely important

3.3. Linen

3.3.1. Linens used policies and procedures addressing the handling, processing and storage of clean and dirty linen should be established (see linen policy).

3.4. Environment:

3.4.1. All horizontal surfaces including examination tables and counters should be cleaned with an infection control approved hospital grade leaner / disinfectant between patients. An acceptable alternative is to use a disposable paper covering for each patient. Surfaces must be cleaned and disinfected when the paper covering is torn, wet or visibly soiled.

3.4.2. Sharing of toys should be limited to prevent cross contamination.

3.5. Education:

3.5.1. Appropriate training and orientation should be done regarding infection prevention and control for all staff.

3.5.2. Topics should include: hand hygiene, high level disinfection, sterilization, waste management procedures and infection prevention and control practices

such as the use of appropriate barrier.

4.0 EQUIPMENTS /MATERIALS /FORMS:

4.1. N/A

5.0 ROLES AND RESPONSIBILITIES:

5.1. N/A

6.0. PROCEDURE:

6.1. For hand hygiene procedures (pls. see Hand Hygiene policy).

6.2. For procedures on how to don and remove PPE (pls. see PPE policy).

6.3. For procedures regarding laundry services (pls. see Linen policy).

7.0.RELATEDPOLICY / CROSS REFERENCES:

7.1. Association for Professionals in Infection Control and Epidemiology, 2017

7.2. GCC infection control manual 3rd edition 2018.

8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Ms. Mirriam Liquanan	Infection Control Nurse	MIRRIAM P. LIQUANAN RN 0281588 #1184454	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LINAN NURSING DIRECTOR	06 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	11 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No: 12-R-M-0046094	19 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairy	Quality Director		21 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		24 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

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Initial Policy and Procedure	IC 58-1	April 1, 2012
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Deleted	IDP-IC-019(3)	April 1, 2016
Replaced by New Policy and Procedure	IDP-IC-017(4)	April 1, 2019

INTERDEPARTMENTAL POLICY AND PROCEDURE (IDP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
INFECTION CONTROL – ANAESTHESIA			IDP-IC-018(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	IDP-IC-018(3)	5
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ANESTHETISTS, ANESTHESIA TECHNICIANS	

1.0 PURPOSE:

1.1. To ensure that the practice of anesthesia is as safe as possible for patients, anesthetists and other health care workers it is imperative that infection risks to all parties to minimized.

2.0 DEFINITION (S):

2.1. ***Decontamination:*** The process of removing infective and unwanted matter from the surface of an object, i.e. thorough cleaning.

2.2. ***Disinfection:*** A process, which eliminates many or all micro-organisms except those spores.

2.3. ***Sterilization:*** A process, which leads to the complete elimination of all microorganisms.

2.4. ***Asepsis:*** The prevention of contact with micro-organisms. For disinfection or sterilization to occur there must have been previous thorough decontamination.

3.0 POLICY STATEMENT(S):

3.1. It is the policy of Afif General Hospital to promote safe practice of anesthesia administration.

4.0 EQUIPMENT/MATERIAL/FORMS:

4.1. N/A

5.0 ROLES AND RESPONSIBILITIES:

5.1. N/A

6.0. PROCEDURE:

6.1. Minimization of infection risk to patients

6.1.1. Invasive Procedures

6.1.1.1. Invasive procedures are to be performed with aseptic technique.

6.1.2. Vascular Cannulation

6.1.2.1. Anesthesia provider and practitioner's hands must be washed and protective gloves should be worn. The skin should be disinfected with an appropriate preparation prior to cannulation being performed in a manner, which ensures that the tip and shaft of the cannula remain sterile.

6.1.3. Central Vascular Cannulation

6.1.3.1. Cannulation of central veins is to be performed using aseptic technique.

6.1.4. Drip set

6.1.4.1. Every drip set should be dedicated to one patient. The tip should be kept clean all the time.

6.1.5. Regional Anaesthesia

6.1.5.1. When regional blocks are being performed, the hands should be washed and gloves worn, the skin should be disinfected with a suitable preparation and the procedure done in such a way that the needle remains sterile.

6.1.5.2. When a spinal or epidural block is being performed or a catheter is to be left indwelling, full aseptic technique including the wearing of sterile gown and gloves and the use of a field bordered by sterile drapes is recommended.

6.2. Anesthetic Apparatus

6.2.1. The following measures are intended to minimize the risk of transmission of infection in the respiratory tract via anesthetic equipment. This policy does not address the processing of equipment during long-term ventilation.

6.2.1.1. Devices to be sited in the upper airway

i. Devices passing through the mouth or nose will become contaminated in the upper airway. Endotracheal tubes, nasal and pharyngeal airways should be kept sterile until used.

ii. Reusable face masks must be thoroughly decontaminated and then undergo disinfection prior to each use. Items to be placed in

the upper airway which may cause bleeding e.g. laryngoscope blades and temperature probes, must be disinfected before reuse. It is not ordinarily necessary to package these items separately while they await their next use.

iii. Where the manufacturer advises that a particular piece of equipment is to be sterilized before use, e.g. the laryngeal mask, that advice is to be followed.

iv. Laryngoscope handles should be decontaminated between uses.

v. There should be separation of unused items and soiled items during use.

6.2.2. The Breathing Circuit

6.2.2.1. For each patient the Breathing Circuit should have been sterilized, or decontaminated and disinfected or protected by the use of appropriately positioned new filters.

6.2.2.2. When a filter is used, it is recommended that disposable items between the patient and the filter be disposed of and non-disposable items, including in-line measurement devices, be decontaminated and disinfected prior to reuse.

6.2.2.3. Any condensate that collects in the tubing of a breathing circuit should be periodically drained and discarded, taking precautions not to allow condensate to drain towards the patient.

6.6.2.4. Hands should be washed after handling the fluid.

6.2.3. Sampling Lines for Side Stream Gas Analysis

6.2.3.1. These need not ordinarily be sterilized before reuse because of the one-way flow of gas through them. Sampled gas from a capnograph or other such measurement device should not be returned to the anesthetic circuit unless it is first passed through a viral filter.

6.2.4. Carbon Dioxide Absorbers

6.2.4.1. When a filter is used in the circuit, sterilization of the carbon dioxide absorber prior to every case is not necessary nor with most models is it practicable although disposable versions and models capable of being sterilized are available.

6.2.4.2. The device including the unidirectional valves should be disinfected regularly.

6.2.5. Ventilator Circuits and Bellows

6.2.5.1. These items should be cleaned and disinfected regularly.

6.2.6. Anesthetic Machine

6.2.6.1. Routine sterilization or high-level disinfection of the internal machinery of anesthetic machines is considered unnecessary.

6.2.7. Flexible Laryngoscopes and bronchoscopes

6.2.7.1. These instruments and accessory equipment must be sterilized between uses.

6.2.8. Humidifier

6.2.8.1. Sterile water is used to fill humidifiers. Hot water bath type humidifiers should be disinfected between uses.

6.3. Presentation of drugs for injection

6.3.1. Because of the potential for cross infection, the use of the contents of multiple does vials and ampoules for more than one patient is not recommended except in a dispensing situation where different doses are drawn up before administration of first dose to a patient. Likewise, it is recommended that any infusion should be prepared and used for one patient only.

6.4. Patient Factors

6.4.1. In immunosuppressed or immune deficient patients to whom infection poses a particular threat, there may be reason to apply more stringent practices than those outlines.

6.5. Prevention of infection of health care workers

6.5.1. Health care workers are recommended to follow universal precautions.

7.0. RELATED POLICY / CROSS REFERENCES:

7.1. GCC manual of infection control manual 3rd edition 2018.

8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Ms. Mirriam Licuanan	Infection Control Nurse	MIRRIAM R. LICUANAN RN #484454	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR S.C.# 00-RN-8886	06 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	07 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR	19 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		21 MAR 2019
Approved by	Dr Adil Moteb Bin Omairah	Hospital Director		24 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

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INTERDEPARTMENTAL POLICY AND PROCEDURE (IDP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
INFECTION CONTROL – NEONATAL INTENSIVE CARE UNIT			IDP-IC-019(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	IDP-IC-019(3)	10
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		NEONATAL INTENSIVE CARE UNIT/NURSERY DEPARTMENT	

1.0 PURPOSE:

1.1. To prevent transmission of infection to neonates, hospital personnel and visitors.

1.2. All staff in the department shall understand infection control activities, which may reduce the risk of infection to patients and personnel to prevent exposure of neonates and staff members to nosocomial infections.

2.0 DEFINITION (S):

2.1. Nursery- refers to any inpatient care unit dedicated to the care of newborn.

2.2. Normal newborn nursery -refers to a nursery providing routine care of the normal newborn.

2.3. Neonatal Intensive Care Unit (NICU) - refers to areas providing intensive or intermediate care.

2.4. Rates of neonatal infection-are influenced by the patient population, the level of care provided, the proportion of infants of very low and birth weight, the intent of utilization, the surgical procedures performed, the intensity of surveillance, types of infections reported and whether or not infections of maternal origin are included.

3.0 POLICY STATEMENT(S):

3.1. Infection Control in Nursery Design

3.1.1. The nursery should be located in a low-traffic area with restricted access

3.1.2. The design should provide adequate space for appropriate care of the infant and for the necessary patient care equipment.

3.1.3. Space requirement:

3.1.3.1. 30 net. ft². per infant and at least 3 ft. between bassinets for the normal newborn.

3.1.3.2. For continuing care of healthy low-birth-weight infants-50 net ft² per infant and at least 4 ft² between bassinets.

3.1.3.3. For the intermediate care nursery, 100 to 120 net ft² for each patient station – at least 4ft. between incubators for bassinets and 5 ft. wide.

3.1.3.4. For the NICU, net 150 ft² for each patient station, at least 6ft. between incubators and 8 ft. aisles.

3.1.4. There should be sufficient numbers of placed sinks for hand washing.

3.1.4.1. sink for every 6 to 8 patients in the normal newborn nursery 1 sink for every 3 to 4 patients in intermediate care nurseries and NICUs.

3.1.4.2. There should be sink in the resuscitation area and one sink per 3 to 4 patients in admission and observation and continuing areas.

3.1.4.3. Nursery should have one negative pressure isolation room to accommodate newborns with Airborne Infections.

3.2. Infection Control and Nursery Staffing

3.2.1. There should be sufficient numbers of staff to permit time to adequate care of the infants and hand cleaning between patient contacts.

3.2.2. Recommended Nurse.

3.2.2.1. One nurse for every 6 to 8 infant or for every 3 to4 mother-infants pairs in the normal newborn

3.2.2.2. One nurse for every 3 to 4 patients requiring continuing care.

3.2.2.3. One nurse for every 2 to 3 patients in intermediate-care units.

3.2.2.4. One nurse for every 1 to 2 patients in NICUs.

3.3. Hand washing - (Refer to hand hygiene policy)

3.4. Provide special attire to reduce microbial shedding into the environment

3.4.1. Short sleeved scrub attire for personnel

3.4.2. Provide proper P.P.E.(Personnel Protective Equipment) for patient in isolation Unit.

3.5. Control of traffic

3.5.1. Restrict visitors – Only immediate family.

3.6. Environmental Control

3.6.1. Floor must be clean daily with detergent and Clorox.

3.6.2. Damp dusting of all surfaces every shift (8 hours).

3.6.3. Dispose trash properly.

3.7. Practices to reduce transmission of microorganism.

3.7.1. Staff

3.7.1.1. Sick staff must inform the Head Nurse.

3.7.1.2. Staff exposed to communicable diseases should not be allowed in the department until medically cleared by the physician in O.P.D. Staff must be free from infection.

3.7.1.3. New staff should be screen for MRSA for known carriers – not allow working in the department. Staff should receive appropriate treatment and must have 3 negative results, before allow to resume their duty.

3.7.1.4. Nursery Personnel should receive Influenza vaccine yearly.

3.7.2. Cohort System

3.7.2.1. Plan cohort system to minimize risk of transmission of infection.

3.7.2.2. Assign personnel in the cohort area and should not work in other area at the same time.

3.7.2.3. For healthy newborn, rooming-in programs and early discharge from the hospital reduce the newborn's risk of exposure to other infant's flora and contact with personnel.

3.7.3. Patient Family

3.7.3.1. A mother with respiratory infection should wash her hands before contact with her

3.7.3.2. Other family members with respiratory infections should not visit patient unless necessary.

3.8. Infection Control in Newborn care

3.8.1. Cord Care

3.8.1.1. The cord will be cut and tied using aseptic technique.

3.8.1.2. The umbilical cord stump is left to dry naturally.

3.8.1.3. The cord clamp should be removed prior to discharge unless otherwise ordered by a physician.

3.8.1.4. For umbilical catheter care – daily clean with alcohol swab and if infected apply povidone – Iodine.

3.8.2. Skin Care

3.8.2.1. Maternal blood and meconium should be removed with sterile cotton sponges and warm water.

3.8.2.2. Wear gloves when handling the neonate until the initial skin cleansing has been performed.

3.8.2.3. When soap is used, it should be supplied in a single-use container.

3.8.2.4. Bathing with antiseptic agents is not recommended for routine newborn care, only during an outbreak.

3.8.2.5. Cleaning of the diaper area and other soiled areas should be carried out as needed, using warm water with mild soap.

3.8.3. Eye care

3.8.3.1. Eyes should be cleaned with sterile cotton to removed secretions and debris.

3.8.3.2. Topical prophylaxis should be administered within 1 hour of birth.

3.8.3.3. Care should be taken to avoid contamination of the eyes with respiratory tract secretions during suctioning of the nasopharynx or endotracheal tube.

3.8.4. Infant feeding care

3.8.4.1. Breast milk will be collected and stored aseptically. Milk will be expressed into sterile containers.

3.8.4.2. All pump components that are in contact with milk should be washed with hot soapy water after each use, dried thoroughly and stored in a clean place.

3.8.4.3. Pump should be sterilized or disinfected between uses by different mothers.

3.9. Reduction of risks associated with invasive procedures and devices.

3.9.1. Umbilical arterial catheters should be removed within 5 days and venous catheters should be removed within 14 days of insertion

3.10. Prevention of transmission of microorganisms from newborns: Routine Procedures

3.10.1. Hand washing – Enforce hand washing policy for all persons entering the nursery.

3.10.2. Gowns / long sleeved gown

3.10.2.1. Gowns or long sleeved gown must be worn by personnel holding a newborn outside of the bassinet or incubator.

3.10.2.2. A separate gown should be used for each infant and discarded after use or maintained exclusively for the care of a single infant and changed at the end of a shift or if wet or soiled.

3.10.2.3. Long sleeved gowns should be worn to protect uncovered skin during procedures and activities that may result in skin exposure to blood, body fluids, secretions, or excretion.

3.10.3. Gloves

3.10.3.1. Gloves should be worn when touching mucous membranes or non-intact skin and for contact with blood, body fluids, secretions, excretions and items contaminated with these substances.

3.10.3.2. Gloves should be removed promptly after use and before contact with another patient and hands should be washed when gloves are removed.

3.10.4. Mask and Protective Eyewear

3.10.4.1. Masks / Goggles or glasses should be worn to protect the healthcare workers from mucous membranes during procedures that may generate splashes or sprays of blood, body fluids, secretions or excretion.

3.10.5. Disinfection of equipment between patients

3.10.5.1. All equipments should be cleaned and disinfected between patients.

3.10.5.2. Equipment in direct contact with the skin or mucous membranes of newborns should be sterilized or should undergo decontamination.

3.10.5.3. Stethoscopes and ophthalmoscopes should be reserved for use with one patient or decontaminated with alcohol wipes or other disinfectant.

3.11. Outbreak Management

3.11.1. Outbreak investigation should be undertaken when there is a significant increase of infection.

3.11.2. Review of infection control procedures, including Hand hygiene Compliance, Aseptic techniques and practices for sterilization and disinfection should be performed.

3.11.3. Culture of potential environmental sources or personnel should be obtained only if preliminary epidemiologic investigation suggests an association with infection.

3.11.4. Cohort should be maintained until all infected and exposed infants are discharged or until the expected period of pathogen shedding has passed.

3.11.5. If an outbreak is not brought under control by these measures, it is necessary to close the unit to new admission until all infected and exposed infants have been discharged.

3.12. Prevention of transmission from Inanimate Environment

3.12.1. Nursery should be kept clean and dust free.

3.12.2. Floors, work surfaces and other horizontal surfaces should be cleaned daily with disinfectant.

3.12.3. Walls, curtains and window blinds should be cleaned often to prevent accumulation of dust.

3.12.4. Equipment like resuscitation bags, masks and other items in contact with the skin or mucous membranes should be replaced and undergo sterilizations or disinfection on a regular basis.

3.12.5. Incubators, bassinets should be changed and cleaned periodically.

3.12.6. Clean linen from the laundry must be stored in closed cabinet to prevent dust contamination. If used linen should be handled as little as possible avoid hand contamination and aerosolization of microorganisms.

3.13. Elimination of sources of waterborne pathogens.

3.13.1. Water reservoir should be drained, cleaned and refilled with sterile water every 24 hours.

3.13.2. Nebulizers and attached tubing and water traps should be replaced regularly with equipment that is sterile or that has undergone high level of disinfection.

3.13.3. Sterile water should be used in nebulizers and humidifiers. Condensate in ventilator tubing should be drained and discarded periodically.

3.14. Enhancement of neonatal defenses (Failure to vaccinate newborns who will have prolonged hospitalization places them at risk of in hospital exposure occur)

3.14.1. Newborns in hospital should receive diphtheria, tetanus, Acellular Pertussis, inactivated polio, H. influenza b conjugate and Pneumococcal conjugate vaccines at 2 months age.

3.14.2. Medically stable preterm infants should be vaccinated with full doses at the recommended ages.

3.14.3. Newborns born with HBsAg positive mother should receive HBV vaccine with regardless of gestational age. HBV vaccination of newborns of birth weight less

than 2000 grams to HBsAg negative mothers should be deferred until the infant is 1 month old or until just prior to discharge.

3.14.4. All infants should receive influenza vaccine at age of 6 months.

3.14.5. Administration of live polio vaccine to hospitalized patient is contraindicated because of the risk of transmission of the vaccine virus to immunocompromised patients.

3.15. Prevention of transmission for newborns with recognized Infection

3.15.1. Use of isolation room – a single room is required for infections with airborne transmission like varicella, measles, tuberculosis and influenza. Asymptomatic infants with mothers with peripartum varicella or measles should be isolated too.

3.15.2. Isolation precautions in the open nursery. Isolate newborn with gastroenteritis, respiratory tract or skin infection in a single room.

3.15.3. Gloves and gowns were recommended for care of patients requiring Contact Precautions.

3.15.4. Newborns are unlikely to generate large droplets. Mask and eye protect should be worn as Standard Precaution.

3.15.5. Cohorting may be useful at times of community outbreaks.

3.15.6. The mother with transmissible infection should wash her hands before handling her infant and should wear a gown.

3.15.7. Transmission–based precautions are recommended for certain clinical conditions and infectious agents (Airborne, Droplet, or Contact).

3.15.8. Contact precautions are recommended for infants with skin or wound infections.

3.15.9. Cultures of the umbilicus and anterior nares of infants should be performed to determine the extent of the outbreak.

3.15.10. Culture should also be obtained from the personnel who are epidemiologically linked to transmission.

3.15.11. Alleviation of overcrowding and understaffing are important control measures. When large numbers of infants are involved, cohorting must be done.

3.15.12. For MRSA outbreak

3.15.12.1. New admissions infected infants and exposed infants should be cohorted separately.

3.15.12.2. Application of antiseptic agents to the umbilical stump has been used to delay or prevent colonization.

3.15.12.3. Bathing of infants with an antiseptic may be indicated.

3.15.12.4. Mupirocin ointment should apply to the nares and cords of newborns in outbreak control.

3.15.12.5. Personnel identified as carriers, should be removed from patient contact until they received appropriate treatment to eradicate carriage.

3.15.12.6. Patient with infections caused by multiply resistant strains should be placed on contact precaution.

3.15.13. For Other Gram – Negative Bacilli

3.15.13.1. Prevention involves elimination of reservoirs of standing water in the N.I.C.U.

3.15.13.2. Use of sterile water in nebulizers and humidifiers,

3.15.13.3. Disinfection of patient care equipment. (Patient care equipment should be decontaminated between patients)

3.15.13.4. If Legionella infection is identified, search for the source and appropriate decontamination should be performed.

3.15.13.5. Notify the Infection control Department for assistance in managing the outbreak.

3.16. Infection Control in Nursery Design

3.16.1. The nursery should be located in a low-traffic area with restricted access.

3.16.2. The design should provide adequate space for appropriate care of the infant and for the necessary patient care equipment. For Space requirement:

3.16.3. Air supply for NICU should undergo filtration at least 90% efficiency- 10-15 air exchanges per hour and positive pressure airflow relative to the surrounding areas.

3.16.4. Nursery should have one negative pressure isolation room to accommodate newborns with Airborne Infections.

3.17. Infection Control and Nursery Staffing

3.17.1. There should be sufficient numbers of staff to permit time to adequate care of infants and hand cleaning between patient contacts.

3.17.2. Recommended Nurse.

3.18. Reduction of risks associated with Invasive Procedures and Devices

3.18.1. Post exposure Prophylaxis:

3.18.1.1. Post Prophylaxis is recommended to prevent or modifying infection after exposure to maternal or nursery pathogens.

3.18.1.2. Antibiotic prophylaxis is administered to the newborn of a mother with untreated gonorrhea, syphilis, infections tuberculosis or Pertussis, and for high-risk newborns with antepartum exposure to GBS.

3.18.1.3. Acyclovir is indicated for selected high risk infants exposed to HSV.

3.18.1.4. Antiretroviral prophylaxis is administered to infants born to HIV-infected mothers.

3.18.1.5. Newborns exposed postnatally to Pertussis or to invasive H. Influenza b or meningococcal infection should receive antibiotic prophylaxis.

3.18.1.6. HBV immunoglobulin is administered for intrapartum exposure to HBV in addition to HBV vaccine.

3.18.1.7. Newborns of mothers with varicella of onset 5 days or before to 2 days after delivery should receive VZIG. VZIG is also recommended after nosocomial varicella exposure for all hospitalized premature newborns born to non-immune mothers and to all newborns born at less than 28 weeks gestation.

3.18.1.8. Immune globulin is also recommended for newborns exposed to measles.

3.18.1.9. Immune globulin has been used to control nursery outbreaks of HAV.

4.0 EQUIPMENTS /MATERIALS /FORMS:

4.1. N/A

5.0 ROLES AND RESPONSIBILITIES:

5.1. N/A

6.0. PROCEDURE:

6.1. N/A

7.0. RELATED POLICY / CROSS REFERENCES:

7.1. Association for Professionals in Infection Control and Epidemiology, Inc. 2017.

8.0. APPROVAL:

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Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		14 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC 60-1	April 1, 2012
Replaced by	IDP-IC-021(2)	April 1, 2014
Deleted	IDP-IC-021(3)	April 1, 2016
Replaced by New Policy and Procedure	IDP-IC-019(4)	April 1, 2019

INTERDEPARTMENTAL POLICY AND PROCEDURE (IDP)			
DEPARTMENT: INFECTION CONTROL		SECTION:	
TITLE/DESCRIPTION		POLICYNUMBER &VERSION	
COLLECTING AND MONITORING CENTRAL LINE ASSOCIATED BLOOD STREAM INFECTION (CLABSI) RATES		IDP-IC-020(4)	
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	IDP-IC-020(3)	18
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		INTENSIVE CARE UNIT / NEONATAL INTENSIVE CARE UNIT ANMD ARTIFICIAL KIDNEY UNIT STAFF	

1.0 PURPOSE:

1.1. To provide a summary of information to healthcare workers an understanding of how to collect and monitor the CLABSI rates.

1.2. Describe the scope of the problem of CLABSI

1.3. Review the structure of the Device-associated Module in NHSN and the Surveillance methodology used for data collection

1.4. Define key terms and protocols used for collecting CLABSI and corresponding denominator data

1.5. Describe how to collect CLABSI data using the BSI form

1.6. Describe how CLABSI rates and device utilization ratios are calculated and reported to promote performance improvement

2.0 DEFINITION (S):

2.1. Infection Window Period

2.2. Date of Event (DOE)

2.3. Present on Admission (POA)

2.4. Healthcare-associated Infection (HAI)

2.5. Repeat Infection Timeframe (RIT)

2.6. Central line

2.7. Infusion

2.8. Location of Attribution

2.9. Transfer Rule

2.10. CLABSI

2.11. Laboratory-Confirmed Bloodstream Infection (LCBI)

2.1. Infection Window Period:

- **The 7-day period during which all site-specific infection criterion must be met.**
- Includes the day the first positive diagnostic test*(as part of site-specific infection criterion was obtained) the 3 calendar days before and the 3 calendar days after.

For the purpose of CLABSI, the ***diagnostic test is laboratory confirmed blood cultures.**

Table 2: Infection Window Period

Infection Window Period		**3 days before**
	First positive diagnostic test OR First documented localized sign and/or symptom in the absence of a diagnostic test	
		3 days after

2.2 Date of Event:

- **The date the first element used to meet a CDC/NHSN site-specific infection criterion occurs for the first time within the seven day Infection Window Period.**
- For a BSI, the date of event is the date when the first element used to meet the BSI infection criterion occurred for the first time in the Infection Window Period.

ble 4: Infection Window Period and Date of Event

(Patient age < 65)

Infection Window Period
(first positive diagnostic test, 3 days before and 3 days after)

Date of event
(date the first element occurs for the first time within the infection window period)

HOSPITAL DAY	INFECTION WINDOW PERIOD
1	
2	Fever > 38.0 C
3	Fever > 38.0 C
4	**Urine culture:** >100,000 cfu/ ml *E. coli*
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
	SUTI-POA **Date of Event = 2** **Pathogen = *E. coli***

HOSPITAL DAY	INFECTION WINDOW PERIOD
1	
2	
3	
4	**Urine culture** >100,000 cfu/ml *E. coli*
5	Fever > 38.0 C
6	Fever > 38.0 C
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
	SUTI-HAI **Date of Event = 4** **Pathogen = *E. coli***

2.3. POA versus HAI:

- **POA: Present on Admissions**
- Infection is considered POA if the date of event of the CDC/NHSN site-specific infection is the day of admission to an inpatient location, the 2 days before or the day after.

- **HAIs: Health care associated Infections**
- An infection is considered to be HAI if the date of event of the CDC/NHSN site-specific infection criterion occurs on or after the 3rd calendar day of admission to the facility, with the day of admission to an inpatient location being calendar day 1.

2.4. Repeat Infection Timeframe (RIT):

- **14-day timeframe during which no new infections of the same type will be reported**.
- The date of event will be Day 1 of the 14-day Repeat Infection Timeframe.
- Additional pathogens recovered from the same type of infection during the RIT are added to the event.
- Note that only **Primary BSI** create a **BSI RIT**,
- **Secondary BSIs do not** create a BSI RIT.

2.5. Central Line:

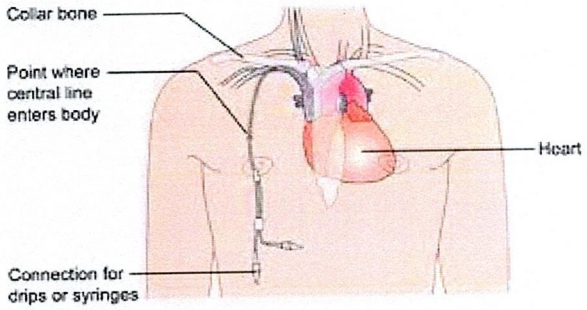
- An intravascular catheter that terminates at or close to the heart or in one of the great vessels

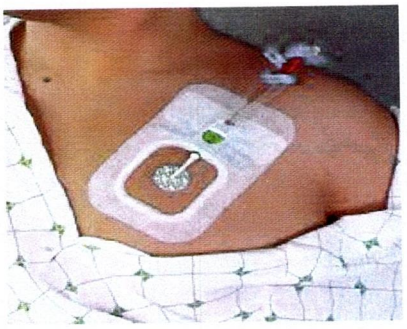
- Used for infusion, withdrawal of blood, or hemodynamic monitoring usually for longer period of time, over weeks or more

Great vessels for the purpose of reporting central line infections

and counting central line days:

- Aorta
- Pulmonary artery
- Superior vena cava
- Inferior vena cava
- Brachiocephalic veins
- Internal jugular veins
- Subclavian veins
- External iliac veins
- Common iliac veins
- Femoral veins
- In neonates, the umbilical artery/vein



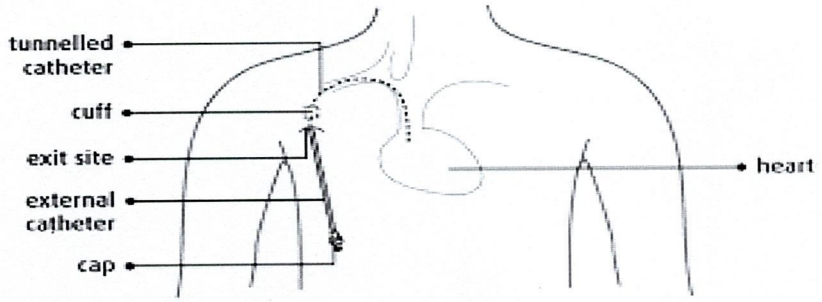


Types of Central lines:

Permanent Central Line:

A tunneled (including certain dialysis catheters) or implantable catheter (including ports)

Tunnelled Central Venous Catheter

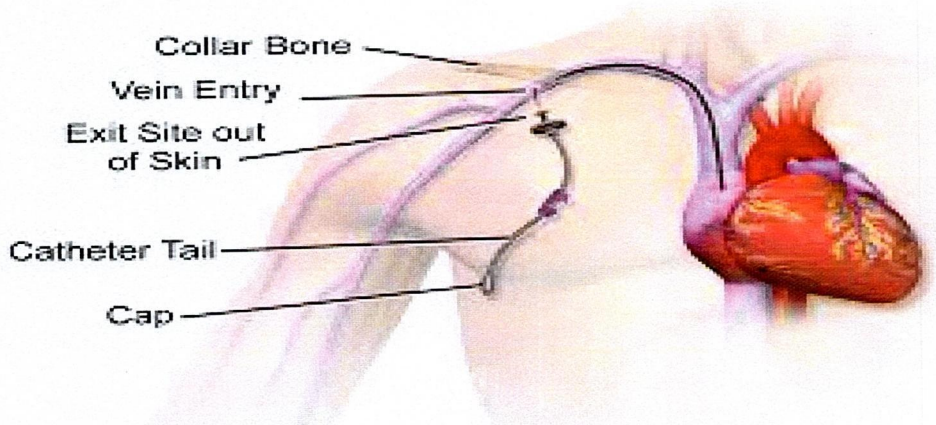


Ports:

- Port access is performed by percutaneous needle insertion using needle insertion using a non-coring needle. The system consists of 2 primary components.
- An injection port with a self-sealing silicone septum
- And a radio opaque catheter

Temporary Central Line

A non-tunneled, non-implanted catheter



Non-Tunneled Central Venous Access Device

Umbilical Catheter:

- A central vascular device inserted through the umbilical artery or vein in a neonate
- All umbilical catheters are central lines.



Comparison of the Major Types of Central Venous Catheters (CVCs)

Catheter Type	Entry Site	Duration of Use	Advantages	Disadvantages	Comments
Nontunneled CVCs	Percutaneously inserted into central veins (internal jugular, subclavian, or femoral vein)	Short term*	■ Percutaneous insertion ■ Relatively safe and inexpensive	■ Require local anesthesia ■ May be inserted in the operating room ■ Dressing required over site ■ Risk of infection	■ Account for the majority of central line–associated bloodstream infections (CLABSIs) ■ More commonly used than long-term CVCs
Tunneled CVCs	Implanted into internal jugular, subclavian, or femoral vein	Long term†	■ Dressing not needed after healed	■ Require surgical insertion ■ Require local or general anesthesia ■ Increased cost	■ Lower rate of infection than nontunneled CVCs ■ Dacron cuff inhibits migration of organisms into catheter tract when ingrown
Implantable ports	Inserted in the subclavian or internal jugular vein. Tunneled beneath the skin; subcutaneous port accessed with a noncoring needle.	Long term	■ Improved body image (low visibility of port) ■ Patient comfort ■ Local catheter site care and dressing not needed when not in use	■ Require surgical insertion and removal ■ Require general anesthesia ■ Increased cost	■ Lowest risk for CLABSI
Peripherally inserted central catheter (PICC)	Inserted percutaneously into basilic, brachial, or cephalic vein and enters the superior vena cava	Usually short to intermediate	■ Ease of insertion, usually at the bedside by a specially trained registered nurse ■ Relatively inexpensive and safe	■ Can be difficult to position in central vein ■ Potential for occlusion	■ Lower rate of infection than nontunneled CVCs

Infusion:

- Introduction of a solution through a blood vessel via a catheter lumen
- Continuous like nutritional fluids or medications
- Intermittent infusions like flushes, IV administration, blood transfusion or hemodialysis

ACCESS:

- Defined as line placement, insertion of needle into the port, infusion or withdrawal through the line.

CLABSI:

What exactly is a CLABSI?

- A **laboratory-confirmed primary bloodstream infection (LCBI)** where central line (CL) or umbilical catheter (UC) was in place for **>2 calendar days** on the date of event, with day of device placement being Day 1,

AND

- A CL or UC was in place on the date of event or the day before. If a CL or UC was in place for >2 calendar days and then removed, the date of the event of the LCBI must be the day of device discontinuation or the next day.

So what is considered is a Primary Bloodstream Infection (BSI)?

- A **BSI** is a Laboratory-confirmed bloodstream infection (LCBI) that is not secondary to an infection at another body site.

Location of attribution:

- The **inpatient location**
- Where the patient was assigned on the date of the LCBI event,
- Which is further defined as the date when the first element used to meet the LCBI criterion

TRANSFER RULE:

- If the date of event for a CLABSI is the day of transfer or discharge, or the next day, the infection is attributed to the transferring location. Receiving facilities should share information about such HAIs with the transferring facility to enable reporting. This is called the **Transfer Rule.**

Multiple Transfers:

In instances where a patient has been transferred to more than one location on the date of a CLABSI, or the day before, attribute the CLABSI to the first location in which the patient was housed the day before the CLABSI's date of event.

LCBI Criterion 1:

- Patient of any age
- Recognized pathogen
- Not the NHSN common commensal

- From one or more blood cultures

LCBI Criterion 2:

- Patient of any age
- Patient has at least one of the following signs or symptoms:
- fever (>38.0°C),
- chills, or
- hypotension

And

- Organism cultured from blood is not related to an infection at another site

And

- The same common commensal (i.e., diphtheroids [Corynebacterium spp. not C. diphtheriae], Bacillus spp. [not B. anthracis], Propionibacterium spp.,
- Coagulase-negative staphylococci [including S. epidermidis], viridans group
- Streptococci, Aerococcus spp., Micrococcus spp. is **cultured from two or more** consecutive blood cultures drawn on separate occasions. Criterion elements must occur within the Infection Window Period, the seven-day time period which includes the collection of positive blood, the 3 calendar days before, and the 3 calendar days after.
- If a patient meets both LCBI 1 and LCBI 2 criteria, report LCBI 1 with the recognized pathogen entered as pathogen #1 and the common commensal as pathogen #2.
- No additional elements (in other words, no sign or symptom such as fever) are o meet LCBI 1 criteria; therefore, the LCBI 1 DOE will always be the
- ection date of the first positive blood specimen used to set the BSI IWP.

LCBI Criterion 3: Neonates/Infants:

- Patient **<1 year of age** has at least one of the following signs or symptoms :
- Fever (>38.0°C) hypothermia (<36.0°C), apnea, or bradycardia

AND

- Organism cultured from blood is not related to an infection at another site

AND

- The same common commensal (i.e., diphtheroids [Corynebacterium spp. not C. diphtheriae], Bacillus spp. [not B. anthracis], Propionibacterium spp.,
- Coagulase-negative staphylococci [including S. epidermidis], viridians group Streptococci, Aerococcus spp., Micrococcus spp.) is cultured from two or more consecutive blood cultures drawn on separate occasions.

Criterion 3 only applies to patients who are 1 year of age or less (before or on their birthday).

• Although LCBI Criterion 3 can only be used for infants and neonates, Criteria 1 or 2 can also be used in this population.

- HAI occurring **on the day of device discontinuation** or **the following calendar day** is considered a **device associated infection**.

Secondary BSI Attribution Period:

- The period in which a positive blood culture must be collected to be considered as a secondary bloodstream infection to a primary site infection.
- Includes the Infection Window Period combined with the Repeat Infection Timeframe (RIT). It is 14-17 days in length depending upon the date of event.
- **Primary bloodstream infection (BSI):** A Laboratory Confirmed Bloodstream Infection (LCBI) that is not secondary to an infection at another body site.
- A BSI that is thought to be seeded from a site-specific infection at another body site

Secondary Blood Stream Infection:

- An organism identified from the site specific infection is used as an element to meet the site-specific infection criterion, AND the blood specimen contains at least one matching organism to that site specific specimen
- OR
- The positive blood specimen is an element used to meet the site-specific infection criterion

Table 6: Secondary BSI Attribution Period

Infection Window Period
(first positive diagnostic test, 3 days before and 3 days after)

Repeat Infection Timeframe (RIT)
(date of event = day 1)

Secondary BSI Attribution Period
(Infection Window Period + RIT)

Date of Event
(date the first element occurs for the first time within the infection window period)

HOSPITAL DAY	BSI	RIT	INFECTION WINDOW PERIOD
1			
2			
3			
4		1	**Urine culture:** >100,000 cfu/ml *E. coli*
5		2	**Fever** > 38.0 C
6		3	**Fever** > 38.0 C
7		4	
8		5	
9		6	
10		7	Blood culture : *E.coli*
11		8	
12		9	Urine culture: > 100,000 cfu/ml *S. aureus*
13		10	
14		11	
15		12	
16		13	
17		14	
18			
19			
			SUTI & Secondary BSI **Date of Event = 4** **Pathogens = *E. coli, S. aureus***

Secondary BSI Attribution Period (SBAP):

- The period in which a blood specimen must be collected for a secondary BSI to be attributed to a primary site of infection.
- This period includes the Infection Window Period (IWP) combined with the Repeat Infection Timeframe (RIT).
- It is 14-17 days in length depending upon the date of event
- Blood culture pathogen matches at least one organism found in a site-specific infection culture used to meet the primary site infection criterion within the **secondary bloodstream infection attribution period.**

Data Collection:

- Forms used for CLABSI
- Numerator Data
- Denominator Data
- **Note:** Only one central line per patient is counted per calendar day regardless of how many central lines the patient may have.

- If a patient has both a temporary and a permanent central line, only report the temporary line because it is associated with a higher risk of bloodstream infection.

3.0 POLICY STATEMENT(S):

3.1. All personnel responsible for caring and management of patients under CVCs shall follow the policy to prevent CLABSI.

3.2. They must know how to collect and monitor CLABSI Rates

4.0. EQUIPMENT/MATERIAL/FORMS:

4.1. CVCs set and CLABSI FORMS

5.0. ROLES AND RESPONSIBILITIES:

How to reduce CLABSI:

The following interventions decrease the risk for CLABSIs:

- **Appropriate hand hygiene,**
- **Use of chlorhexidine for skin preparation,**
- **Use of full-barrier precautions during central venous catheter insertion,**
- **Avoid using the femoral vein for central venous catheters in adult patients, and**
- **Removing unnecessary central venous catheters.**

Intrinsic and Extrinsic Risk Factors for CLABSI

Intrinsic Risk Factors (nonmodifiable characteristics of the patient)	Extrinsic Risk Factors (potentially modifiable factors associated with CVC insertion or maintenance)
Patient age	Prolonged hospitalization before CVC insertion
Underlying diseases or condition	Multiple CVCs
Patient's gender	Parenteral nutrition
	Femoral or internal jugular access site
	Heavy microbial colonization at insertion site
	Multilumen CVCs
	Lack of maximal sterile barriers for CVC insertion
	CVC insertion in an ICU or emergency department

Using CLABSI Data:

- Report infections data in a timely manner.
- Discuss each case with the nursing and medical staff when it is identified if possible
- Doing so will allow you to clarify unclear documentation.

How to calculate rates.

- How CLABSI rates and
- Device utilization ratios are calculated and reported.

Calculating the CLABSI Rate:

- The CLABSI rate is an incidence rate and is calculated by using the following formula:
- CLABSI rate = # CLABSIs identified × 1000

  # Central Line days

Device Utilization (DU) Ratio:

- The DU Ratio measures the proportion of patient days in which central lines were used. It is a measure of the risk associated with the location.

- DUR= No. of Central Line Days

  No. of Patient days

STOP CLABSI:

- **BY PROPER INSERTION TECHNIQUES**
- **MANAGEMENT OF CENTRAL LINE**

Reducing CLABSI will help to:

- **Decreased infection-related mortality**
- **Earlier recovery and shorter length of hospital stay**
- **Less risk of adverse effects**
- **Reduced risk of antimicrobial resistance**
- **Cost reduction (length of stay, therapy, diagnostic testing)**

6.0. RELATEDPOLICY / CROSS REFERENCES:

6.1. Infection control surveillance manual 2018

6.2. APIC text book of infection control 2017.

6.3. MoH HESN training

7.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Ms. Mirriam Licuanan	Infection Control Nurse	MIRRIAM F. LICUANAN RN 0281568 #7784454	03 MAR 2019
Reviewed by	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	06 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR	11 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		19 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		24 MAR 2019

8.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC 63-1	April 1, 2012
Replaced by	IDP-IC-020(4)	April 1, 2014
Deleted	IDP-IC-024(2)	April 1, 2016
Replaced by New Policy and Procedure	IDP-IC-020(4)	April 1, 2019

Afif General Hospital
Infection Prevention & Control Department
Central-Line Associated Bloodstream Infection (CLABSI) Surveillance Form

وزارة الصحة
Ministry of Health

SECTION I: PATIENT AND HOSPITAL INFORMATION

Patient ID: | | | | | | | | | | |

Date of Birth: | | | | | | | | | D D M M Y Y Y Y

Gender: ☐ Male ☐ Female

Surveillance Plan Date: | | | | | M M Y Y

Location:
☐ Intensive Care Unit (ICU): _____
☐ Neonatal Intensive Care Unit (NICU): _____
☐ Specialty Care Area (SCA): _____
☐ Other: _____

Facility ID: | | | | | | | |

SECTION II: ADMISSION INFORMATION

Hospital Stay:
Admission Date: | | | | | | | D D M M Y Y
Discharge Date: | | | | | | | D D M M Y Y

ICU/NICU Stay:
Admission Date: | | | | | | | D D M M Y Y
Discharge Date: | | | | | | | D D M M Y Y

If Location is NICU:
Birth Wt: | | | | | Grams
Gestational Age: | | | Weeks

SECTION III: CENTRAL LINE INFORMATION

Number of Central Lines (CL) Inserted: | |

Location of CL Insertion: _____

Fill info below for each CL (enter numbers only)

Type 1:
1-Non-tunneled
2-Tunneled
3-Port-A-Cath
4- Peripheral percutaneous (PICC)

Type 2:
1-Temporary
2- Permanent

Site:
1-Jugular
2- Subclavian
3- Femoral
4- Umbilical
5- Other

Lumen:
1-Single
2- Multiple

	Insertion Date (D D M M Y Y)	Removal Date (D D M M Y Y)	Type 1	Type 2	Site	Lumen
CL1						
CL2						
CL3						

SECTION IV: BSI EVENT INFORMATION

BSI Diagnosed:
☐ Yes, complete below
☐ No

BSI Diagnosis: (See the back)
☐ Laboratory confirmed (LCBI)
☐ Criterion-1 LCBI
☐ Criterion-2 LCBI
☐ Criterion-3 LCBI

BSI Date: | | | | | | D D M M Y Y

CL was in place on the date of event or the day before for >2 calendar days BSI diagnosis:
☐ Yes
☐ No

Note: The answer has to be yes to be considered CLABSI

In NICU, BSI was associated with:
☐ Non-umbilical catheter
☐ Umbilical catheter

BSI Diagnosed after a Procedure:
☐ Yes, complete next 2 question
☐ No

Procedure Name:

Procedure Date: | | | | | | D D M M Y Y

Hospitalization Death:
☐ Yes, complete next 2 questions
☐ No

Death Date: | | | | | | D D M M Y Y

BSI Contributed to Death:
☐ Yes
☐ No

SECTION V: LABORATORY RECORD

Time of Specimen Collection:
_____:_____ AM / PM

Organism Identified:
☐ Yes, complete the back
☐ No

COMMENTS:

Date Data Collected	D	D	M	M	Y	Y
Collector ID						
Date Data Entered	D	D	M	M	Y	Y
Data Entry ID						

Afif General Hospital
Infection Prevention & Control Department
Central Line Bundle Form

وزارة الصحة
Ministry of Health

SECTION I: PATIENT AND HOSPITAL INFORMATION

Patient ID: | | | | | | | | | | |

Date of Birth: | | | | | | | | | | | | | | | |
D D M M Y Y Y Y

Gender: ☐ Male ☐ Female

Surveillance Plan Date: | | | | |
M M Y Y

Facility ID: | | | | | | | |

Insertion location:
ICU:_____
NICU:_____
SCA:_____
Other:_____

Follow-up location:
ICU:_____
NICU:_____
SCA:_____
Other:_____

Central Line Type:
Type: (check one) ☐ Permanent ☐ Temporary ☐ Non-tunneled ☐ Tunneled ☐ Port-A-Cath ☐ PICC
Lumen: (check one) ☐ Single ☐ Multiple

Insertion Site: ☐ R Jugular ☐ L Jugular ☐ R Subclavian ☐ L Subclavian ☐ R Femoral ☐ L Femoral ☐ Umbilical ☐ Other(s)

Operator ID: | | | | | | | | | | |

SECTION II: BUNDLE VARIABLES

1. Hand Hygiene		☐ Yes	☐ No	☐ Not documented
2. Maximal Barrier Precautions		☐ Yes	☐ No	☐ Not documented
For provider:	Cap	☐ Yes	☐ No	☐ Not documented
	Mask	☐ Yes	☐ No	☐ Not documented
	Sterile gloves	☐ Yes	☐ No	☐ Not documented
	Sterile gown	☐ Yes	☐ No	☐ Not documented
For patient:	Large sterile drape	☐ Yes	☐ No	☐ Not documented
3. Chlorhexidine Skin Antisepsis 2% chlorhexidine in alcohol for adults, pediatrics & neonates > 2 wk or >1,500 g 2% aqueous chlorhexidine for neonates ≤2 wk or ≤1,500 g		☐ Yes	☐ No	☐ Not documented
4. **Optimal Catheter Site Selection:** Subclavian vein for adults, femoral vein for pediatrics, and umbilical vein or PICC site for neonates		☐ Yes	☐ No	☐ Not documented
Insertion Compliance: Compliant for the above 4 (insertion) components		☐ Yes	☐ No	

5. **Daily Review of Central Line Necessity:** With prompt removal of unnecessary lines (record data below by date)

D D M M Y Y			
	☐ Yes	☐ No	☐ Not documented
	☐ Yes	☐ No	☐ Not documented
	☐ Yes	☐ No	☐ Not documented
	☐ Yes	☐ No	☐ Not documented
	☐ Yes	☐ No	☐ Not documented
	☐ Yes	☐ No	☐ Not documented
	☐ Yes	☐ No	☐ Not documented

Number of **compliant days** out of days examined for "Daily Review"--	
Number of **total days** examined for "Daily Review"----------	

COMMENTS:

Date Data Collected	D	D	M	M	Y	Y	
Collector ID							
Date Data Entered	D	D	M	M	Y	Y	
Data Entry ID							

SECTION VI: LABORATORY RECORD

Name of Gram-Positive or Negative Organism(s)	Date of Record DD-MM-YY	Antimicrobial Sensitivity																										
		AMIK	AMP	AZTREON	CEFAZ	CFEP	CEFTAZ	CEFTOX	CEFTRI	CEFUR	CIP	CLINDA	ERYTH	GEN/TOB	IMI	LEVO	LNZ	MERO	MET	MUP	NIT	OXA	PEN	PIP	RIF	SXT/TMZ	TAZ	VANC	OTHERS

Name of Other Organisms (e.g., Candida spp.)	Date of Record DD-MM-YY	Antimicrobial Sensitivity (type antimicrobial names)					
		1-.....	2-.....	3-.....	4-.....	5.....	6-.....

Result Codes: **S** = Susceptible **I** = Intermediate **R** = Resistant **N** = Not tested

Drug Codes:

AMIK = amikacin
AMP = ampicillin
AZTREON = aztreonam
CEFAZ = cefazolin
CFEP = cefepime
CEFTAZ = ceftazidime
CEFTOX= cefotaxime
CEFTRI = ceftriaxone
CEFUR = cefuroxime
CIP = ciprofloxacin
CLINDA = clindamycin
ERYTH = erythromycin
GEN/TOB = gentamicin/tobramycin
IMI = imipenem
LEVO = levofloxacin
LNZ = linezolid
MERO = meropenem
MET = metronidazole
MUP = mupriocin
NIT = nitrofurantoin
OXA = oxacillin
PEN = penicillin
PIP = piperacillin
RIF = rifampicin
SXT/TMZ =sulfamethoxazole/trimethoprim
TAZ = piperacillin-tazobactam (tazocin)
VANC = vancomycin

Primary Bloodstream Infections (BSIs) are laboratory-confirmed bloodstream infections (LCBI) that are not secondary to an infection meeting CDC/ NHSN criteria at another body site. LCBI criteria may be used for patients of all ages and must meet one of the following three criteria:

Criterion 1:

- A patient of any age has a recognized pathogen cultured from one or more blood cultures, **and**
- The organism cultured from blood is not related to an infection at another site.

Criterion 2:

- A patient of any age has at least one of the following signs or symptoms: fever (>38°C), chills, or hypotension, **and**
- Signs and symptoms and positive laboratory results are not related to an infection at another site, **and**
- A common skin contaminant (3.g., diptheroids, Bacillus sp., Propionibacterium sp., coagulase-negative staphylococci, viridians group streptococci, Aerococcus spp., Micrococcus spp.) is cultured from two or more blood cultures drawn on separate occasions.

Criterion 3:

- A patient < 1 year of age has at least one of the following signs or symptoms: fever (>38°C, rectal), hypothermia (<37°C, rectal), apnea, or bradycardia **and**
- Signs and symptoms and positive laboratory results are not related to an infection at another site **and**
- A common skin contaminant (e.g., diptheroids, Bacillus sp., Propionibacterium sp., coagulase-negative staphylococci, viridians group streptococci, Aerococcus spp., Micrococcus spp.) is cultured from two or more blood cultures drawn on separate occasions

Notes:

Blood specimens for culture should be obtained from two or more blood draws from separate venipuncture sites, simultaneously or over a short period of time (i.e., within a few hours).
One or more blood cultures should have grown organisms, as reported by the laboratory.
Recognized pathogen does not include organisms considered common skin contaminants (e.g., S. aureus, Enterococcus spp., E. coli, Pseudomonas spp., Klebsiella spp., Candida spp.).
Two or more blood cultures drawn on separate occasions means that (1) blood from at least two blood draws were collected within two days of each other and (2) that at least one tube from each blood draw is reported by the laboratory as having grown the same common skin contaminant organism.

Afif General Hospital
Infection Prevention & Control Department
Central Line Insertion Procedure Form

وزارة الصحة
Ministry of Health

SECTION I: PATIENT AND HOSPITAL INFORMATION

Patient ID: | | | | | | | | | | |

Date of Birth: | | | | | | | | | | D D M M Y Y Y Y

Gender: ☐ Male ☐ Female

Facility ID: | | | | | | | |

Date of Insertion: | | | | | | | | | | D D M M Y Y Y Y

Central Line Inserter:_____	**Yes**	**No**	**If not Compliant, give Reason and Action Taken:**
Correct Hand Washing Done Prior to Procedure:			
Maximal Barrier Precautions			
Inserter: Mask			
Cap			
Sterile Gloves			
Sterile Gown			
Patient: Large Sterile Drape			
Correct Skin Antisepsis Used:			
For adult: 2% Chlorhexidine in alcohol/ povidone iodine			
For pediatric: 2% Chlorhexidine in alcohol/ povidone iodine			
For neonate:			
>2 wks >1,500 g 2% Chlorhexidine in alcohol/ povidone iodine			
≤2 wks ≤1,500 g 2% Chlorhexidine in aqueous/ povidone iodine			
Optimal Site Selected:			
For adult: Subclavian vein			
For pediatric: Femoral			
For neonate: Umbilical or PICC			
Aseptic Technique Maintained Throughout Procedure:			
Sterile Dressing Applied Correctly			
Skin was dry before applying:			
No hair or other item (e.g., plaster) over the dressing:			
Sharps Handled Safely, Safe Disposal after Procedure:			
Daily Line Necessity Review Done Daily During Rounds:			
D1: ___/___			
D2: ___/___			
D3: ___/___			
D4: ___/___			
D5: ___/___			
D6: ___/___			
D7: ___/___			
D8: ___/___			
D9: ___/___			
D10: ___/___			
D11: ___/___			
D12: ___/___			
D13: ___/___			
D14: ___/___			
Correct Changing of Dressing Done (Nursing Staff):			

INTERDEPARTMENTAL POLICY AND PROCEDURE (IDP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICY NUMBER & VERSION
COLLECTING AND MONITORING OF VENTILATOR ASSOCIATED PNEUMONIA RATES			**IDP-IC-021(4)**
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	**IDP-IC-021(3)**	12
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		INTENSIVE CARE UNIT AND NEONATAL INTENSIVE CARE UNIT STAFF	

1.0 PURPOSE:

1.1. To provide a summary of information to healthcare workers an understanding of how to collect the data, analyze, distribute and monitor ventilator associated pneumonia rates.

2.0. POLICY STATEMENT(S):

2.1. All personnel responsible for caring and management of patients under ventilator shall follow the policy to prevent VAP.

2.2. They must know how to collect and monitor Ventilator Associated Pneumonia Rates.

3.0. EQUIPMENTS /MATERIALS /FORMS:

- VAP forms and VAP bundles
- Computer
- Printer

4.0. DEFINITION (S):

4.1 Key Terms:

4.1.1 Infection Window Time Period

4.1.2 Date of Event (DOE)

4.1.3 Present on Admission (POA)

4.1.4 Healthcare-associated Infections (HAI)

4.1.5 Repeat Infection Timeframe (RIT)

4.1.1 Infection Window Period:

- The infection window period **is the 7-day** period during which **all site-specific infection criteria must be met. This period includes the day the first positive diagnostic test that is an element of the site-specific infection criterion was obtained**, the 3 calendar days before and the 3 calendar days after.
- For patients with underlying pulmonary or cardiac disease who are required to have serial imaging test results, to satisfy the PNEU/VAP definitions, the second imaging test must **occur within 7 days of the first** but is not required to occur within the Infection Window Period.

- **The date of the first CXR or the date of the first laboratory specimen culture** can be utilized when determining the infection window period. All other elements of PNEU/VAP definition must be present within the infection window period.

4.1.2 DATE OF EVENT:

For a PNEU/VAP, The Date of Event is the date when the first element used to meet the PNEU infection criterion occurs for the first time within the seven-day Infection Window Period.

4.1.3 PRESENT ON ADMISSION (POA):

- Infection is considered POA if the date of event of the CDC/NHSN site-specific infection is the day of admission to an inpatient location, the 2 days before or the day after.
- Infections that are POA as defined above, are **NOT HAIs** and are not reported.

4.1.4 HAI:

An infection is considered to be HAI if the date of event of the CDC/NHSN site-specific criterion occurs on or after the 3rd calendar day of admission to the facility, with the day of admission to an inpatient location being calendar day 1.

4.1.5 REPEAT INFECTION TIMEFRAME (RIT):

- The RIT is a 14-day timeframe during which no new infections of the same type will be reported. The date of event will be Day 1 of the 14-day Repeat Infection Timeframe.

- Additional pathogens recovered from the same type of infection during the RIT are added to the event.

5.0 VENTILATOR:

- A machine designed to move breathable air into and out of the lungs, to provide breathing for a patient who is physically unable to breathe, or breathing insufficiently.

- A device to assist or control respiration, inclusive of the weaning period, through a tracheostomy or by endotracheal intubation.
- NOTE: Lung expansion devices such as
- intermittent positive-pressure breathing (IPPB),
- nasal positive end- expiratory pressure (PEEP), and
- continuous nasal positive airway pressure (CPAP, hypo CPAP)
- are not considered ventilators
- unless delivered via **tracheostomy or endotracheal intubation.**

6.0 PNEUMONIA (PNEU):

is identified by using a combination of imaging, clinical and laboratory criteria.

A pneumonia where the patient was on mechanical ventilation for >2 calendar days on the date of event, with day of ventilator placement being day 1,

and

the ventilator was in place on the date of event or the day before.

VAP is not monitored after the patient is discharged from the facility.

7.0 TRANSFER RULE:

- If the date of event for a PNEU/VAP is on the date of transfer or the next day, the infection is attributed to the transferring/discharging location.
- If the patient was in multiple locations within the transfer rule time frame, attribute the infection to the original location initiating transfer.

7.1 DEFINING PNEUMONIA:

1. PNU 1
2. PNU 2
3. PNU 3

7.1.1 Important Considérations about Pneumonia Surveillance Criteria

- Physician diagnosis of pneumonia alone is **not** an acceptable criterion for pneumonia.

7.2 PNU1: CLINICALLY DEFINED - ANY PATIENT:

7.2.1 X-ray image:

Patient with underlying diseases has **2 or more** serial chest imaging test results with one of the following:

1. New or progressive and persistent infiltrate
2. Consolidation

3. Cavitation
4. Pneumatoceles, in <1 yr.

OR

Patient without underlying pulmonary or cardiac diseases has **1 definitive** imaging test result with one of the following:

1. New or progressive and persistent infiltrate
2. Consolidation
3. Cavitation
4. Pneumatoceles, in <1 yr.

AND

7.2.2. Symptoms and Signs:

At **least one** of the following:

1. Fever (>38.0° C/100.4° F) with no other cause
2. Leukopenia (< 4,000 WBC/mm3) or leukocytosis (>12,000 WBC/mm3)
3. Altered mental status with no other cause, in > 70 yrs.

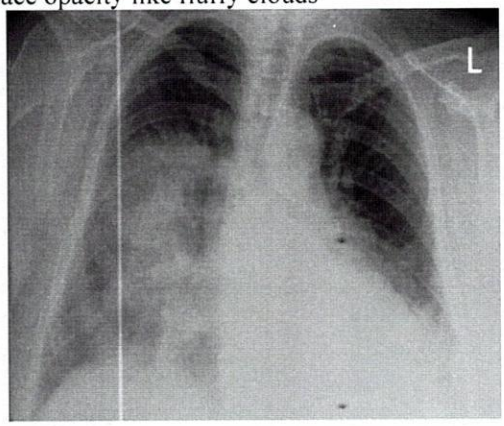
AND

At **least two** of the following:

1. New onset of purulent sputum, or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements
2. New onset or worsening cough, or dyspnea, or tachypnea.
3. Rales or bronchial breath sounds
4. Worsening gas exchange (e.g., O2 desaturations [e.g., PaO2/FiO2≤240], increased O2 requirement, or increased ventilator demand)

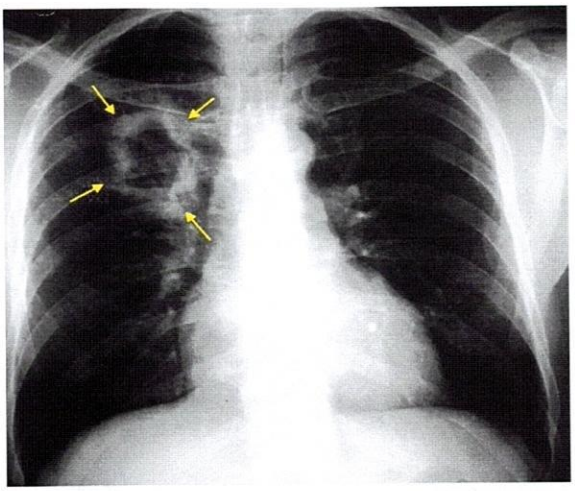
Consolidation

- Lung tissue filled with liquid
- Swelling or hardening or solidification of lung tissue
- Air space opacity like fluffy clouds



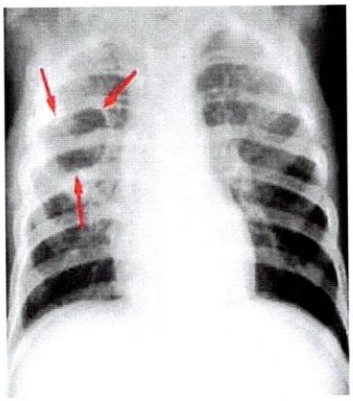
Cavitation:

- Gas filled areas of lungs in the center of consolidation



Pneumatocele:

- Multiple ,
- Thin walled ,
- Air filled cyst like cavities



7.3 Notes about Chest Imaging Evidence

In patients with pulmonary or cardiac disease, the diagnosis of pneumonia may be difficult.

In these difficult cases, serial chest imaging results must be examined to help separate infectious from non-infectious causes (e.g., pulmonary edema).

7.4 PNU1: Clinically Defined –

Alternate Criteria for Infants & Children

Imaging Test Results:

Patient with underlying diseases has **2 or more**

serial chest imaging test results with one of the following:

1. □ New or progressive and persistent infiltrate
2. □ Consolidation
3. □ Cavitation
4. □ Pneumatoceles, in <1 yr.

OR

Patient without underlying diseases has **1 definitive** imaging test with one of the following:

1. □ New or progressive and persistent infiltrate
2. □ Consolidation
3. □ Cavitation
4. □ Pneumatoceles, in <1 yr.

AND

Worsening gas exchange (e.g. O2 desats [e.g.,pulse oximetry <94%], increased O2 req,

or increased ventilation demand)

and <u>three</u> of the following:

1. Temperature instability
2. Leukopenia (< 4,000 WBC/mm3) or leukocytosis (> 15,000 WBC/mm3) and left shift (> 10% band forms)
3. New onset of purulent sputum, or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements
4. Apnea, tachypnea, nasal flaring with retraction of chest wall or nasal flaring with grunting
5. Wheezing, rales, or rhonchi
6. Cough
7. Bradycardia (<100 beats/min.) or tachycardia (> 170 beats/min.)

OR

Matching pathogens recovered from a respiratory culture (e.g., sputum) and blood culture alone does not allow for assignment of a BSI as secondary to PNEU.

Must meet the PNU2 or PNU3 definition

Pathogen reporting and secondary bloodstream infection attribution for the PNU1 definition is not permitted

For Children >1 or ≤12 yrs.:

At least three of the following:

1. •Fever (>38.0° C/100.4°F) or hypothermia (<36.0° C/96.8°F)
2. •Leukopenia (< 4,000 WBC/mm3) or leukocytosis (> 15,000 WBC/mm3)
3. •New onset of purulent sputum, or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements
4. •New onset or worsening cough, or dyspnea, apnea, or tachypnea
5. •Rales or bronchial breath sounds
6. Worsening gas exchange (e.g., O2 desats [e.g., pulse oximetry < 94%], increased O2 requirement, or increased ventilation demand).

OR

Matching pathogens recovered from a respiratory culture (e.g., sputum) and blood culture alone does not allow for assignment of a BSI as secondary to PNEU.

Must meet the PNU2 or PNU3 definition. Pathogen reporting and secondary bloodstream infection attribution for the PNU1 definition is not permitted.

8.0 PNU2: RADIOLOGY FINDINGS:

1. Imaging criteria are exactly the same as for PNU1
2. Patient with underlying diseases has 2 or more
3. serial chest imaging test results with one of the following:
4. New or progressive and persistent infiltrate
5. Consolidation
6. Cavitation
7. Pneumatoceles, in <1 yr.

OR

Patient without underlying pulmonary or cardiac diseases has 1 definitive imaging test result with one of the following:

1. New or progressive and persistent infiltrate
2. Consolidation
3. Cavitation
4. Pneumatoceles, in <1 yr.

AND

Signs and symptoms:

At least one of the following:

1. Fever (> 38.0°C/100.4°F)
2. Leukopenia (< 4,000 WBC/mm3) or leukocytosis (≥12,000 WBC/mm3)
3. Altered mental status with no other cause, in > 70 yrs.

AND

At least one of the following:

1. New onset of purulent sputum, or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements
2. New onset or worsening cough, or dyspnea, or tachypnea
3. Rales or bronchial breath sounds
4. Worsening gas exchange (e.g., O2 desats [e.g., PaO2/FiO2 ≤240], increased O2 requirement, or increased ventilator demand)

AND

At least one of the following:

1. Positive blood culture
2. Positive pleural fluid culture
3. **Positive quantitative culture from minimally contaminated LRT specimen** (e.g., BAL or protected specimen brushing) **ETT aspiration culture**
4. > 5% BAL-obtained cells contain intracellular bacteria on direct micro-exam
5. Positive quantitative culture of lung tissue.

Histopathologic exam shows one of the following:

1. Abscess formation or foci of consolidation with intense PMN accumulation in bronchioles and alveoli

2. Evidence of lung parenchyma invasion by fungal hyphae or pseudo hyphae.

8.2 Alternately, PNU2 can be identified by at least one of the following: Viral, Chlamydia....

1. Positive **culture** of virus, **Legionella or Chlamydia** from respiratory secretions
2. Positive **non culture diagnostic** laboratory test of respiratory secretions or tissue for **virus, Bordetella, Chlamydia, Mycoplasma, Legionella** (e.g., EIA, FAMA, shell vial assay, PCR, micro-IF)
3. 4-fold rise in paired sera (IgG) for pathogen (e.g., Influenza viruses, Chlamydia)
4. 4-fold rise in L. pneumophila serogroup 1 **antibody titer** to > 1:128 in paired acute and convalescent sera by indirect IFA
5. Detection of L. pneumophilia serogroup 1 antigens in urine by RIA or EIA

9.0. PNU3- IMMUNOCOMPROMISED PATIENT

Imaging criteria are exactly the same as for PNU1 and PNU2

Signs and symptoms:

Patient with underlying diseases has 2 or more serial chest imaging test results with one of the following:

1. •New or progressive and persistent infiltrate
2. •Consolidation
3. •Cavitation
4. •Pneumatoceles, in <1 yr.

OR

Patient without underlying pulmonary or cardiac diseases has 1 definitive imaging test result with one of the following:

1. •New or progressive and persistent infiltrate
2. •Consolidation
3. •Cavitation
4. •Pneumatoceles, in <1 yr.

At least one of the following in an immunocompromised patient:

1. •Fever (> 38.0° C/100.4° F)
2. •Altered mental status with no other cause, in > 70 yrs.
3. •New onset of purulent sputum, or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements.
4. •New onset or worsening cough, or dyspnea, or tachypnea
5. •Rales or bronchial breath sounds
6. •Worsening gas exchange (e.g., O2 desats [e.g., PaO2/FiO2 < 240], increased O2 requirement, or increased ventilation demand)
7. •Hemoptysis
8. •Pleuritic chest pain

Laboratory:

At least one of following:

- Matching positive blood and sputum or endotracheal aspirate cultures with Candida spp.
- Evidence of fungi or from minimally contaminated LRT specimen (e.g., BAL or protected specimen brushing) from one of the following:
- Direct microscopic exam
- Positive culture of fungi
- Non-culture diagnostic laboratory test.

10.0. VENTILATOR-ASSOCIATED EVENT (VAE):

- VAEs are identified by using a combination of objective criteria: deterioration in respiratory status after a period of stability or improvement on the ventilator, evidence of infection or inflammation, and laboratory evidence of respiratory infection in a patient who was ventilated. It has three types as shown below.

- Ventilator is defined as a device to assist or control respiration continuously, inclusive of the weaning period, through a tracheostomy or by endotracheal intubation. The ventilator has to be in place for >2 days.

10.1. VENTILATOR-ASSOCIATED CONDITION (VAC):

After a period of stability or improvement on the ventilator sustained for ≥ 2 calendar days, the patient has the following indicators of worsening oxygenation; increase in daily minimum FiO2 values of ≥ 0.20 points or increase in daily minimum PEEP values of ≥ 3 cm H2O.

10.2. INFECTION-RELATED VENTILATOR-ASSOCIATED COMPLICATION (IVAC):

After meeting the criteria of VAC, the patient meets the following 2 criteria; Temperature > 38 °C or < 36°C, OR white blood cell count ≥ 12,000 cells/ mm3 or ≤ 4,000 cells/mm3 AND a new antimicrobial agent(s) is started, and is continued for ≥ 4 calendar days.

10.3. POSSIBLE VENTILATOR-ASSOCIATED PNEUMONIA (PVAP):

After meeting the criteria of VAC or IVAC, the patient meets one of the following criteria; (1) Positive culture of respiratory specimens without requirement for purulent respiratory secretions. (2) Purulent respiratory secretions plus organism identified from defined respiratory specimens. (3) One of the following positive tests: Organism identified from pleural fluid, Lung histopathology, Legionella detection, or viral detection.

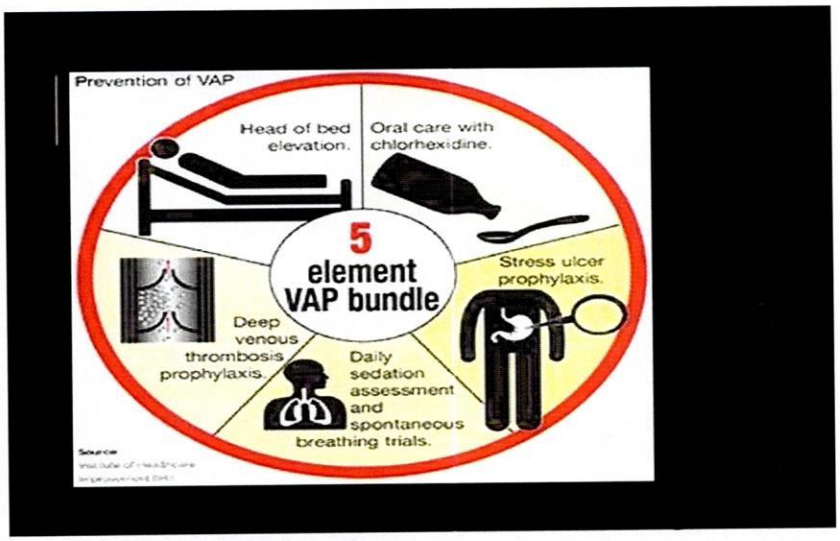
11.0. VENTILATOR BUNDLE

1. Elevation of the head of the bed (HOB) to between 30 and 45 degrees
2. Daily "sedative interruption" and daily assessment of readiness to extubate
3. Peptic ulcer disease (PUD) prophylaxis
4. Deep venous thrombosis (DVT) prophylaxis (unless contraindicated)
5. Daily oral care with chlorhexidine
6. Keep the ventilator circuit free from condensations 2-4 hourly for pediatrics and neonates only.
7. Use meticulously hand hygiene before and after contact with the ventilator circuit for pediatrics and neonates only.
8. Change in line catheter system only when soiled or every 72 hours for pediatrics and neonates only.
9. Store the oral suction device in a clean non sealed plastic bag when not in use for pediatrics and neonates only.

The VAP monitoring will be continued in ICU and in NICU till we get order from the GDIPC to start the VAE in ICU.

All the bundle elements will be updated daily manually in the ICU and NICU and weekly in the HESN

5 elements of the VAP bundle in the ICU to be strictly monitored.



12.0. ROLES AND RESPONSIBILITIES:

- Infection Preventionist (IP)
- Infection control coordinators
- Respiratory Therapy staff
- Data Entry staff

13.0. RELATED POLICY / CROSS REFERENCES:

GCC infection control surveillance 3rd edition 2018

Moh and HESN training program for HAIs.

VAP RATE: The VAP rate per 1000 ventilator-days is calculated by dividing the number of VAPs by the number of ventilator-days and multiplying the result by 1000.

DUR: The Ventilator Utilization Ratio is calculated by dividing the number of ventilator-days by the number of patient-days.

14.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Maher Masoud Abdullah	ICP		19 MAR 2019
Reviewed by	Dr Sher Agha	Head Of IP&C		20 MAR 2019
	Dr. Roberto	ICU Head		20 MAR 2019
	Dr. Ahmed Hassan	Medical Director		24 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		25 MAR 2019
	Dr. Muhammad Mustafa	Medical Head		25 MAR 2019
Approved by	Mr. Abdul Aziz Bin Jaser Al Shalani	Hospital Director		28 MAR 2019

15.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC 62-1	April 1, 2012
Replaced by	IDP-IC-023(2)	April 1, 2014
Deleted	IDP-IC-023(3)	April 1, 2016
Replaced by New Policy and Procedure	IDP-IC-021(4)	April 1, 2019

Afif General Hospital
Infection Prevention & Control Department
Ventilator-Associated Pneumonia (VAP) Surveillance Form

وزارة الصحة
Ministry of Health

SECTION I: PATIENT AND HOSPITAL INFORMATION

Patient ID: | | | | | | | | | | |

Date of Birth: | | | | | | | | | (D D M M Y Y Y Y)

Gender: ☐ Male ☐ Female

Surveillance Plan Date: | | | | | (M M Y Y)

Location:
☐ Intensive Care Unit (ICU): _____
☐ Neonatal Intensive Care Unit (NICU): _____
☐ Specialty Care Area (SCA): _____
☐ Other: _____

Facility ID: | | | | | | | |

SECTION II: ADMISSION INFORMATION

Hospital Stay:
Admission Date: | | | | | | | (D D M M Y Y)
Discharge Date: | | | | | | | (D D M M Y Y)

ICU/NICU Stay:
Admission Date: | | | | | | | (D D M M Y Y)
Discharge Date: | | | | | | | (D D M M Y Y)

If Location is NICU:
Birth Wt: | | | | | Grams
Gestational Age: | | | Weeks

SECTION III: VENTILATOR INFORMATION

Number of Times Ventilator was Used: | |

Location of Ventilator Insertion: _____

Fill info below for each time (enter numbers only)

Intubation:
1-Elective
2-Emergency
3-N/A

Tracheostomy:
1-Percutaneous ICU/ER)
2-Surgical (OR)
3- Previous
4- N/A

	Insertion Date (D D M M Y Y)	Removal Date (D D M M Y Y)	Intubation	Tracheostomy
1st				
2nd				

SECTION IV: VAP EVENT INFORMATION

VAP Diagnosed:
☐ Yes, complete below
☐ No

VAP Diagnosis: (See the back)
☐ PNU1: Clinically defined pneumonia
☐ PNU2: Pneumonia with specific laboratory findings
  ☐ PNU2- Common pathogens
  ☐ PNU2- Uncommon pathogens
☐ PNU3: Pneumonia in Immunocompromised patients

VAP Date: | | | | | | (D D M M Y Y)

Patient had ventilator in place on the date of event or the day before for >2calendar days: VAP diagnosis:
☐ Yes
☐ No

Note: The answer has to be yes to be considered VAP

VAP Diagnosed after a Procedure:
☐ Yes, complete next 2 question
☐ No

Procedure Name:

Procedure Date: | | | | | | (D D M M Y Y)

Development of Secondary BSI:
☐ Yes
☐ No

Hospitalization Death:
☐ Yes, complete next 2 questions
☐ No

Death Date: | | | | | | (D D M M Y Y)

VAP Contributed to Death:
☐ Yes
☐ No

SECTION V: LABORATORY RECORD

Time of Specimen Collection:
_____:_____ AM / PM

Organism Identified:
☐ Yes, complete the back
☐ No

COMMENTS:

Date Data Collected	D	D	M	M	Y	Y
Collector ID						
Date Data Entered	D	D	M	M	Y	Y
Data Entry ID						

SECTION V: LABORATORY RECORD

Name of Gram-Positive or Negative Organism(s)	Date of Record DD-MM-YY	Antimicrobial Sensitivity																										
		AMIK	AMP	AZTREON	CEFAZ	CEFEP	CEFTAZ	CEFTOX	CEFTRI	CEFUR	CIP	CLINDA	ERYTH	GEN/TOB	IMI	LEVO	LNZ	MERO	MET	MUP	NIT	OXA	PEN	PIP	RIF	SXT/TMZ	TAZ	VANC	OTHERS

Insert the identified organism into the correct column, followed by the date of record, and the susceptibility of the organism to each of the listed antibiotics. S if the organism is susceptible, I if intermediate, R if the organism is resistant and N if the antibiotic was not tested. If an antibiotic is not available in your facilities laboratory, enter N for not tested. A list of the names of the antibiotics can be found below.

Name of Other Organisms (e.g., Candida spp.)	**Date of Record** DD-MM-YY	**Antimicrobial Sensitivity (type antimicrobial names)**					
		1-.....	2-.....	3-.....	4-.....	5.....	6- .....

Result Codes: **S** = Susceptible **I** = Intermediate **R** = Resistant **N** = Not tested

Drug Codes:

AMIK = amikacin
AMP = ampicillin
AZTREON = aztreonam
CEFAZ = cefazolin
CFEP = cefepime
CEFTAZ = ceftazidime
CEFTOX= cefotaxime
CEFTRI = ceftriaxone
CEFUR = cefuroxime
CIP = ciprofloxacin
CLINDA = clindamycin
ERYTH = erythromycin
GEN/TOB = gentamicin/tobramycin
IMI = imipenem
LEVO = levofloxacin
LNZ = linezolid
MERO = meropenem
MET = metronidazole
MUP = mupriocin
NIT = nitrofurantoin
OXA = oxacillin
PEN = penicillin
PIP = piperacillin
RIF = rifampicin
SXT/TMZ =sulfamethoxazole/trimethoprim
TAZ = piperacillin-tazobactam (tazocin)
VANC = vancomycin

**For Criterion, please review the flow diagram in the current GCC Surveillance Manual.

Afif General Hospital
Infection Prevention & Control Department
Adult Ventilator Bundle Form

وزارة الصحة
Ministry of Health

SECTION I: PATIENT AND HOSPITAL INFORMATION

Patient ID: | | | | | | | | | | |

Date of Birth: | | | | | | | | | | | | | | | |
D D M M Y Y Y Y

Surveillance Plan Date: | | | | |
M M Y Y

Gender: ☐ Male ☐ Female

Facility ID: | | | | | | | |

Location:
- ☐ Intensive Care Unit (ICU): _____
- ☐ Specialty Care Area (SCA): _____
- ☐ Other (specify): _____

SECTION II: BUNDLE VARIABLES

	DD/MM	DD/MM	DD/MM	DD/MM	DD/MM	DD/MM	DD/MM	DD/MM	DD/MM	DD/MM
1. Elevation of the Head of the Bed to Between 30 and 45 Degrees	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A
2. Daily "Sedation Interruption" and Daily Assessment of Readiness to Extubate	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A
3. Peptic Ulcer Disease (PUD) Prophylaxis	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A
4. Deep Venous Thrombosis (DVT) Prophylaxis (unless contraindicated)	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A
5. Daily Oral Care: 0.12% Oral Chlorhexidine for use as a Mouth Rinse	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A
Overall Compliance: (compliant for all the above 5 components)	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

COMMENTS:

Date Data Collected	D	D	M	M	Y	Y
Collector ID						
Date Data Entered	D	D	M	M	Y	Y
Data Entry ID						

Afif General Hospital
Infection Prevention & Control Department
Pediatric/ Neonatal Ventilator Bundle Form

وزارة الصحة
Ministry of Health

SECTION I: PATIENT AND HOSPITAL INFORMATION

Patient ID: | | | | | | | | | | |

Date of Birth: | | | | | | | | | | | | | | | | (D D M M Y Y Y Y)

Surveillance Plan Date: | | | | | (M M Y Y)

Gender: ☐ Male ☐ Female

Facility ID: | | | | | | | |

Location:
- ☐ Pediatric Intensive Care Unit (PICU): _____
- ☐ Neonatal Intensive Care Unit (NICU): _____
- ☐ Other (specify): _____

SECTION II: BUNDLE VARIABLES

	DD/MM	DD/MM	DD/MM	DD/MM	DD/MM	DD/MM	DD/MM	DD/MM	DD/MM	DD/MM
1. Elevation of the Head of the Bed: Pediatric: 30°-45° Neonatal: 15°-30°	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A
2. Daily Assessment of Readiness to Extubate	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A
3. Neonates Only: Peptic Ulcer Disease (PUD) Prophylaxis (Ranitidine used for post-op near term/ term infants or sick neonates with bloody gastric secretion via OG)	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A
4. Neonates Only: Deep Venous Thrombosis (DVT) Prophylaxis (Heparin used for near term/ term infants with deep vein thrombosis only)	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A
5. Daily Oral Care every 4 hours	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A
6. Keep the Vent Circuit Free from Condensation every 2-4 hours	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A
7. Use Meticulous Hand Hygiene Before & After Contact with Ventilator Circuits	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A
8. Change In-Line Suction Catheter Systems only when Soiled or every 72 hours	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A
9. Store Oral Suction Device in a Clean Non-Sealed Plastic Bag when not in use	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A	☐ Yes ☐ No ☐ N/D ☐ N/A
Overall Compliance: (compliant for all the above components)	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

Date Data Collected (D D M M Y Y)	
Collector ID	

COMMENTS:

Date Data Entered (D D M M Y Y)	
Data Entry ID	

Afif General Hospital
Infection Prevention & Control Department
Neonatal Intensive Care Units (NICUs)
Denominator Form

وزارة الصحة
Ministry of Health

Surveillance Plan Date: | | | | | (M M Y Y)

Facility ID: | | | | | | | |

Location: Neonatal Intensive Care Unit (NICU)

Date	Birth Weight Categories																			
	≤750 g				751 – 1,000 g				1,001 – 1,500 g				1,501 – 2,500 g				>2,500 g			
	Pts	U/C	CL	VNT	Pts	U/C	CL	VNT	Pts	U/C	CL	VNT	Pts	U/C	CL	VNT	Pts	U/C	CL	VNT
1																				
2																				
3																				
4																				
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28																				
29																				
30																				
31																				
Total																				

Pts= Number of Infants **U/C**= Number of Infants with **Umbilical Catheter** **CL**= Number of Infants with 1 or more **Central Lines**
VNT= Number of Infants on a **Ventilator** * If infant has both a U/C and CL, count as U/C Infant only for the day

Assurance of Confidentiality: The information obtained in this surveillance system that would permit the identification of any individual or institution is collected with a guarantee that it will be held in strict confidence, will be used only for the purposes stated, and will not otherwise be disclosed or released without the consent of the individual or the institution in accordance with applicable regulations.

VENTILATOR ASSOCIATED EVENT (VAE) MONITORING FORM

(Infection Control Surveillance Form)

Name of patient							File Number			Bed no.	
Admission date							Location				
MV date											
DATE	**MV DAY**	**PEEP MIN**	**FiO2 MIN**	**Temp > 38°C or < 36°**	**WBC ≥ 12,000 or ≤ 4,000**	**ABX name**	**SPECIMEN**	**POLYS/ EPIS**	**ORGANISM (specify the CFU/ml or count: +4;+3,+2)**	**VAE type (VAC, IVAC or PVAP)**	**Comment**

MV = mechanical ventilation. PEEP min = Daily minimum PEEP. FiO2 min = Daily minimum FiO2. Temp min = Daily minimum temperature. Temp max = Daily maximum temperature. WBC min = Daily minimum white blood cell count. WBC max = Daily maximum white blood cell count. ABX = antimicrobial agents. Polys / epis = Polymorphonuclear leukocytes and squamous epithelial cells from respiratory specimen.

VAE Type: VAC- Increase in daily min FIO2 of ≥0.20 (20%) over the daily minimum FIO2 of the first day in the baseline period, sustained for ≥ 2 calendar days OR Increase in daily min PEEP values of ≥ 3cmH2O over the daily min PEEP of the first day in the baseline period sustained for ≥ 2 calendar days; IVAC- Temperature < 36°C or > 38°C, white blood cell counts ≤ 4,000 cells/mm3 or ≥ 12,000 cells/mm3); a new antimicrobial agent started and continued for ≥4 days; PVAP- 1-positive culture (ETA; BAL; Lung Tissue, Protective specimen brush); 2- purulent resp. secretions (lungs, bronchi, trachea ≥ 25 neutrophils and ≤ 10 squamous epithelial cells PLUS organism from sputum; endotracheal asp; bronchial lavage; lung tissue; protected specimen brush; 3- positive test in pleural fluid; lung histopath; dx test for legionella spec; dx test for influenza virus, RSV, Adenovirus, parainfluenza virus, rhinovirus, coronavirus

INTERDEPARTMENTAL POLICY AND PROCEDURE (IDP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
INFECTION CONTROL GUIDELINES – PHARMACY			IDP-IC-022(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	IDP-IC-022(3)	7
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		PHARMACY DEPARTMENT	

1.0 PURPOSE:

1.1. To provide a general overview of infection control in Pharmacy Department for preventing Hospital Associated Infection (HAIs). Standard Precautions can be applied.

2.0 DEFINITION (S):

2.1. Infection Control Policies are quality control and personnel training programs to prevent contamination of drug product prepare in or dispensed from the Pharmacy, thus, ensuring the microbiological integrity of all pharmaceutical products.

3.0 POLICY STATEMENT(S):

3.1. Employee Health

3.1.1. Pharmacy personnel must be trained and informed to ensure the compliance with the Infection Control Guidelines for Both Patient Care and Employee Health.

3.1.2. Employees with diarrhea, upper respiratory or lower respiratory tract infection, open draining lesions or any other Notifiable diseases must be informed to Infection Control Department through Infection Control Coordinator of the respective department and unless cleared by consultant, will not handle medications where contamination could be a potential problem.

3.1.3. Pharmacy employees should wear clean clothes and uniforms to work. Hands should be washed thoroughly before handling medications and use face mask and disposable gloves when necessary. Hand Hygiene Policy should be strictly followed in the department under the supervision of Infection Control Coordinator of the department.

3.1.4. All employees will be offered for Hepatitis B vaccination based on serological evidence for susceptibility and follow-up anti-HBs must be checked after vaccination completed and should be documented in the medical records.

3.1.5. Influenza vaccine will be offered annually prior to Influenza season and all employees will be encouraged to have the vaccine.

3.1.6. Booster dose of Tetanus vaccine is recommended every ten years and for Meningococcal vaccine should be offered every three years (according to MOH protocol).

3.1.7. **Note**: Infection Control procedures will be supervised by Infection Control coordinator of the Pharmacy department.

3.2. Aseptic Techniques and Hygiene

3.2.1. Personnel should clean hands and forearms with an antimicrobial containing soap or Alcohol gel before preparing sterile products.

3.2.2. Eating, drinking, smoking, applying cosmetics or lip balm or handling of contact lenses in the Pharmacy dispensing areas is not permitted.

3.2.3. No food or beverages will be stored in refrigerators, shelves, cabinets or countertops where medications are present.

3.2.4. Rubber stopper of containers should be wiped or sprayed with 70% isopropyl alcohol, it is better to disinfect the entire surface of ampoules, vials and containers before placement in laminar airflow hood.

3.2.5. Person should avoid touch contamination of sterile products.

3.3. Housekeeping

3.3.1. The following housekeeping procedures will be carried out in accordance with the stated frequencies in the unit dose dispensing areas.

3.3.2. **As required:** Empty trash and replace liners. Wash trash cans as needed. Floor also needs to be cleaned on every day basis following the standard cleaning procedure.

3.3.3. **Daily:** Clean floors, sinks, fixtures, and counter tops with the approved germicidal solution and wipe dry. Damp wipe front and sides of cabinets. Spot clean doors and handles and window glass. Use approved germicidal solution to wet mop floor.

3.3.4. **Weekly:** Damp wipe cabinet tops. Thoroughly clean all doors and windows, vertical and horizontal surfaces.

3.3.5. **Monthly:** Wall tiles, Cassette racks arrangement with housekeeping. Clean lights every 3 months.

3.4. Equipment and Supplies

3.4.1. Utensils, counting trays, and surface will be washed with detergents (anionic and nonionic surfactant, perfume, preservative) at least daily as needed.

3.4.2. Capsule/tablet counters will be cleaned daily with 70% isopropyl alcohol. Packaging equipment will be cleaned before and after each run.

3.4.3. All medications dropped on the floor or contaminated in any way must be discarded.

3.4.4. When pouring liquid medications care should be taken that lip of bottles do not touch. Liquid spilled on side of bottle or counter surface should be wiped off.

3.4.5. Tablets and capsules shall not be counted by using hands. Use no touch procedures.

3.4.6. Pharmacy department should procure a certified vertical or horizontal laminar airflow for preparing sterile products (MOH recommended policy). In order to minimize the risk of contamination, sterile products should be prepared in area functionally separate from other areas and airflow, personnel traffic should be restricted.

3.4.7. Note: Housekeeping (cleaners) will not clean medical equipments.

3.5. Storage of Drugs

3.5.1. Medications when stored on open shelves must be several inches above the floor.

3.5.2. Medications requiring refrigeration are stored in the refrigerator with thermometer, ensuring proper temperature control. Temperature Log sheet should be pasted on visible area of the refrigerator and maintained by a supervisor as designated by Head of Pharmacy department on daily basis.

3.5.3. Cases are not stocked in the dispensing areas.

3.5.4. Stock laser sheet should be maintained by Head of pharmacy or as designated by Head of Pharmacy.

3.6. Returned Medications

3.6.1. All medications in the unit of use packaging returned to the Pharmacy with intact original seal and with no outward sign of contamination can be reused.

3.6.2. Medications such as ophthalmic, liquid bottles, creams and any other medications that may have used in the patient's room must be discarded unless original seal is intact.

3.6.3. All medications for disposal will be sealed in a waste container with labeling of date and contains (yellow thrash bag) and incinerate as per disposal procedures.

3.7. Disposal of Needles, Sharps and Syringes

3.7.1. Needles, sharps such as broken glass, are disposed of in container designated for this purpose (puncture proof yellow sharp containers). Three fourth of containers after filled should be closed and sealed with tape in a yellow bag with date and contains labeled with sticker and removed from the Pharmacy for incineration.

3.7.2. Used syringes should not be recapped, bent or broken and must be disposed as early as possible.

3.8. Parenteral Injection Syringe Doses

3.8.1. Preparations of all sterile syringes will be done using strict aseptic technique.

3.9. Reconstitution of Oral Medications and Sterile Solutions

3.9.1. Sterile water for irrigation will be done using strict aseptic technique.

3.10. Multiple- Dose Vials (MDVs)

3.10.1. Single-dose vials will be used as much as possible (CDC recommends for single dose vials). Single-dose vials (preservative free) should be discarded immediately after use.

3.10.2. Multiple dose vials will be dated at the time of first entry and discarded after the stability period.

3.10.3. Expiration of vials may need to vary according to the other factors that affect sterility.

3.10.4. Refrigerate all multiple-dose vials once used, unless contraindicated by the manufacturer. Situations under which vials are opened, e.g. MDVs on critical care management like on cardiac arrest carts are often entered without careful attention to aseptic technique and should be discarded after first use.

3.10.5. **Note**: Pharmaceuticals should be handled, stored and used as per manufacturer's recommendations.

4.0 EQUIPMENTS /MATERIAL /FORMS:

4.1. Attachment 1: Daily Temperature Monitoring Chart

4.2. Stock Log Sheet

5.0 ROLES AND RESPONSIBILITIES:

5.1. N/A

6.0. PROCEDURE:

6.1. Follow respective policy and procedures in performing all storage, mixing, dispensing functions in the Pharmacy in accordance with Infection Control guidelines as outlined above (All Pharmacy staff).

6.2. Procedures employed in the Pharmacy that require infection control precautions include such appropriate instructions outline in the respective Internal Policy and Procedures (IPPs).

6.3. **QUALITY CONTROL:**

6.3.1. The products should thoroughly examine for any leaks, cracks, turbidity, or particulate matter under strict supervision of Head of Pharmacy. Parenteral should be promptly refrigerated if they are not administered to the patients within 6 hours. Admixed Parenteral can be used maximum up to 1 week providing refrigeration begins immediately after preparation and is continuous. Stability of the ingredients may dictate a shorter storage time. Once in use, all Parenteral should be discarded or completely used within 24 hours. Lipid emulsions should be completed within 24 hours of starting. The Pharmacy department should monitor for appropriate storage of pharmaceuticals throughout the Hospital in coordination with Infection Control Department.

7.0. RELATEDPOLICY / CROSS REFERENCES:

7.1. GCC infection control manual 3rd edition 2018.

7.2. APIC Text of Infection Control and Epidemiology, 2017

8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Ms. Mirriam Licuanan	Infection Control Nurse	MIRRIAM M. LICUANAN RN 0281568 #1484454	03 MAR 2019
Reviewed by	Dr. Sultan Majed Otaiby	Head of Pharmacy	Dr.Sultan Bin Omeera Director of Pharmaceutical Care	05 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No: 13-R-M-0045094	MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairy	Quality Director		MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		04 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC 61-1	April 1, 2012
Replaced by	IDP-IC-022(2)	April 1, 2014
Deleted	IDP-IC-022(3)	April 1, 2016
Replaced by New Policy and Procedure	IDP-IC-022(4)	April 1, 2019

Attachment 1: Daily Temperature Monitoring Chart

Ministry of Health
AFIF GENERAL HOSPITAL

INFECTION CONTROL DEPARTMENT

QUALITY CONTROL CHART FOR REFRIGERATOR CONTROL

DAILY TEMPERATURE MONITOR FOR THE MONTH OF _____, 14 _____
NAME OF DEPARTMENT: _____ ACCEPTABLE RANGE: _____ TO _____

DATE	DAY	7:30 AM		3:30 PM		11:30 PM		REMARKS
		TEMP	SIGN	TEMP	SIGN	TEMP	SIGN	
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
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Note: To be filled by assigned Infection Control Coordinator / assigned departmental staff and countersigned by chief of the department. One copy of this paper should be send to Infection Control on monthly basis.

Quality Control Chart for Refrigerator Temperature
AGH-IC-010

INTERDEPARTMENTAL POLICY AND PROCEDURE (IDP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
INFECTION CONTROL GUIDELINES – ICU			IDP-IC-023(1)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	IDP-IC-NEW	13
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ICU DEPARTMENT	

1.0 PURPOSE:

To provide clear guidelines for the all the HCWs dealing with the patients in intensive care units regarding the bed placement, screening, prevention of infection among the icu patients, isolation and hand hygiene.

2.0 POLICY STATEMENT(S):

The policy stressed on the HCWs to strictly adhere with the infection control guidelines regarding the care of the icu patients.

3.0 EQUIPMENT/MATERIAL/FORMS:

Inter facility transfer form, VAP, CLABSI, SSI and CAUTI form.

4.0 ROLES AND RESPONSIBILITIES:

It is the responsibility of all HCWs to follow this policy and any update in future.

5.0 PROCEDURE:

5.1.0 General Infective Measures:

5.1.1. Isolation

1. Assess the need for isolation. Screen all intensive care unit (ICU) patients for the following:
    - Neutropenia and immunological disorder.

- Diarrhea
- Skin rashes
- Known communicable disease
- Known carriers of an epidemic strain of bacterium.

2. Identify the type of isolation needed.

   There are two types of isolation in the ICU:

   - Protective isolation for neutropenic or other immunocompromised patients to reduce the chances of acquiring opportunistic infections
   - Source isolation of colonized or infected patients to minimize potential transmission to other patients or staff.

3. Isolation rooms should have tight-fitting doors, glass partitions for observation and both negative-pressure (for source isolation) and positive-pressure (for protective isolation) ventilations.

5.1.2. Patient at risk of nosocomial infections:

There are patient, therapy and environment related risk factors for the development of nosocomial infection.

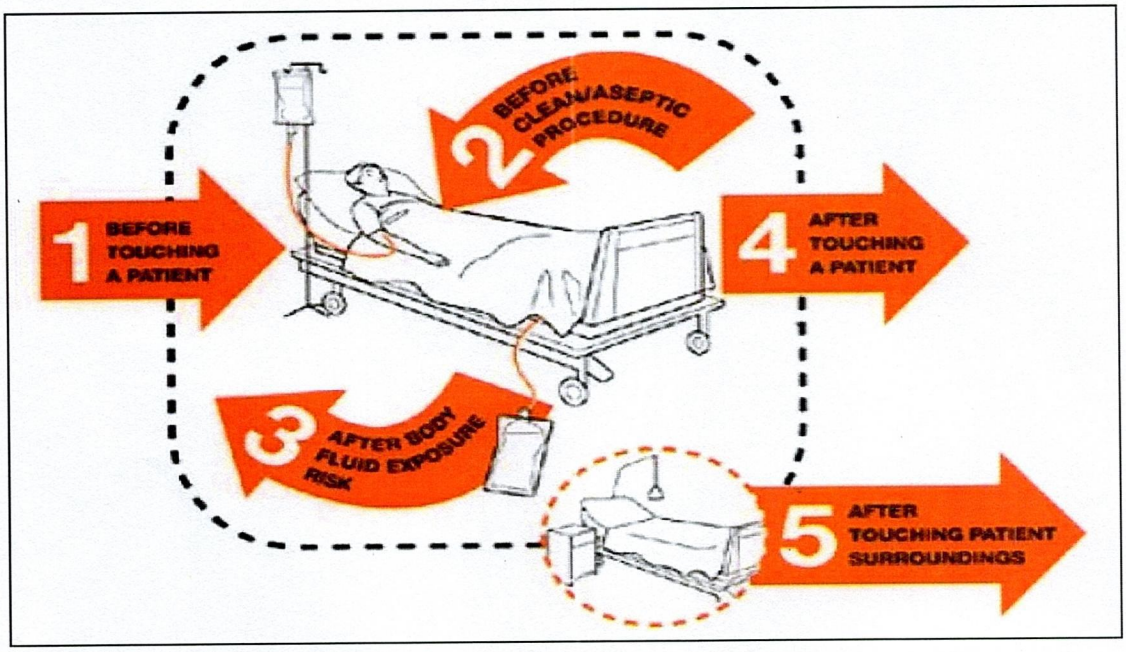
- Age more than 70 years
- Shock
- Major trauma
- Acute renal failure
- Coma
- Prior antibiotics
- Mechanical ventilation.

- Drugs affecting the immune system (steroids, chemotherapy)
- Indwelling catheters
- Prolonged ICU stay (>3 days).

5.1.3. Hand hygiene:

Hands are the most common vehicle for transmission of organisms and "hand hygiene" is the single most effective means of preventing the horizontal transmission of infections among hospital patients and health care personnel.

When and why – follow World Health Organizations (WHO's) five moments for hand hygiene [Figure 1]



- Before touching a patient – to protect the patient from harmful germs carried on your hands
- Before aseptic procedures – to protect the patient against harmful germs, including the patient's own germs
- After body fluid exposure/risk – to protect yourself and the health care environment from the harmful patient's germs
- After touching the patient – to protect yourself and the health care environment from the harmful patient's germs
- After touching the patient's surrounding – to protect yourself and the health care environment from the harmful patient's germs.
- Wash hands with soap and water when they are soiled or visibly dirty with blood or other body fluids. Wet your hands, apply soap and then scrub them vigorously for at least 15 s. Cover all surfaces of the hands and fingers, wash with water and then dry thoroughly using a disposable towel/tissue paper
- Use an alcohol-based hand rub e.g. 0.5% chlorhexidine with 70% w/v ethanol, if hands are not visibly dirty. A combination of chlorhexidine and alcohol is ideal as they cover Gram-positive and Gram-negative organisms, viruses, mycobacteria and fungi. Chlorhexidine also has residual activity.
    - During surgical hand preparation, all hand jewelries (e.g. rings, watches and bracelets) must be removed
    - Finger nails should be trimmed to <0.5 cm (2A) with no nail polish or artificial nails
    - Avoid wearing long sleeves, ties should be tucked in, house coats are discouraged and wearing scrubs is encouraged.

5.1.4. Standard precautions:

Standard precautions include prudent preventive measures to be used at all times, regardless of a patient's infection status.

5.1.4.1. Gloves

Sterile gloves should be worn after hand hygiene procedure while touching mucous membrane and non-intact skin and performing sterile procedures e.g. arterial, central line and Foley catheter insertion

- Clean, non-sterile gloves are safe for touching blood, other body fluids, contaminated items and any other potentially infectious materials
- Change gloves between tasks and procedures in the same patient especially when moving from a contaminated body area to a clean body area.
- Never wear the same pair of gloves for the care of more than one patient.
- Remove gloves after caring for a patient.
- Practice hand hygiene whenever gloves are removed.

5.1.4.2. Gown

- Wear a gown to prevent soiling of clothing and skin during procedures that are likely to generate splashes of blood, body fluids, secretions or excretions.
- The sterile gown is required only for aseptic procedures and for the rest, a clean, non-sterile gown is sufficient.
- Remove the soiled gown as soon as possible, with care to avoid contamination.

5.1.4.3. Mask, eye protection/face shield

- Wear a mask and adequate eye protection (eyeglasses are not enough), or a face shield to protect mucous membranes of the eyes, nose and mouth during procedures and patient care activities that are likely to generate splashes/sprays of blood and body fluids, etc.
- Patients, relatives and health care workers (HCWs) presenting with respiratory symptoms should also use masks (e.g. cough).

5.1.4.4. Shoe and head coverings

- They are not required for routine care.

5.1.4.5. Patient-care equipment

- Used patient-care equipment soiled with blood, body fluids, secretions, or excretions should be handled carefully to prevent skin and mucous membrane exposures, contamination of clothing and transfer of microorganisms to HCWs, other patients or the environment.
- Ensure that reusable equipment is not used for the care of another patient until it has been cleaned and sterilized appropriately.
- Ensure that single use items and sharps are discarded properly.

5.1.5. Transmission-based precautions

In addition to standard precautions, the following should be observed in those patients known or suspected to have airborne, contact or droplet infections.

5.1.5.1. Airborne precautions

- Disease-causing microorganisms may be suspended in the air as small particles, aerosols, or dust and remain infective over time and distance, for example, *Mycobacterium tuberculosis*(pulmonary/laryngeal), varicella zoster virus (chickenpox), herpes zoster (shingles), rubella virus and measles
- Isolate with negative-pressure ventilation. If not then single room with heap filter in place at the head end of the patient.
- Respiratory protection must be employed when entering the isolation room.
- Use the disposable N-95 respirator mask, which fits tightly around the nose and mouth to protect against both large and small droplets. This should be worn by all persons entering the room after fit testing, including visitors.
- For detail refer to the infection control policy APP-IC-027(4).

5.1.5.2. Contact precautions

Infections can be spread by usual direct or indirect contact with an infected person, the surfaces or patient care items in the room, for example, parainfluenza virus infection, respiratory syncytial virus infection, varicella (chickenpox), herpes zoster, hepatitis A and rotavirus infections.

- Isolation is required.
- Non-critical patient-care equipment should preferably be of single use. If unavoidable, then clean and disinfect them adequately before using to another patient.
- Limit transport of the patient.
- For detail refer to infection control policy APP-IC-029(4).

5.1.5.3. Droplet precautions

- Microorganisms are also transmitted by droplets (large particles >5 μm in size) generated during coughing, sneezing and talking, or a short-distance travelling, for example, influenza virus, *Bordetella pertussis*, *Hemophilus influenzae* (meningitis, pneumonia), *Neisseria meningitidis*(meningitis, pneumonia and bacteremia), *Mycoplasma pneumoniae*, Severe acute respiratory syndrome-associated coronavirus, Group A *Streptococcus*, adenovirus and rhinovirus.
- Isolation is required.
- Respiratory protection must be employed when entering the isolation room or within 6-10 ft of the patient. Use the disposable N-95 respirator mask, which fits tightly around the nose and mouth to protect against both large and small droplets. This should be worn by all persons entering the room, including visitors.
- Limit transport of the patient.
- For detail refer to infection control policy APP-IC-028(4).

5.1.6. Specific strategies focused on prevention of specific nosocomial infections:

In addition to the standard and transmission-based precautions, there are several strategies focused on prevention of specific nosocomial infections in critically ill patients. Of these, ventilator-associated pneumonia (VAP), catheter-related bloodstream infection (CRBSI) and urinary tract infection (UTI) are the most important.

5.1.7. Strategies to reduce VAP

- Avoid intubation whenever possible.
- Consider noninvasive ventilation whenever possible.

- Prefer oral intubations to nasal unless contraindicated.
- Keep head elevated at 30-45° in the semi-recumbent body position.
- Daily oral care with chlorhexidine solution of strength 0.12%.
- Daily sedation vacation if feasible and assessment of readiness to extubate.
- Avoid re intubation whenever possible.
- Routine change of ventilator circuits is not required.
- Monitor endotracheal tube cuff pressure (keep it >20 cm H_2 O) to avoid air leaks around the cuff, which can allow entry of bacterial pathogens into the lower respiratory tract.
- Prefer endotracheal tubes with a subglottic suction port to prevent pooling of secretions around the cuff leading to micro aspiration.
- The heat moisture exchanger may be better than the heated humidifier.
- Closed endotracheal suction systems may be better than the open suction.
- Periodically drain and discard any condensate that collects in the tubing of a mechanical ventilator.

5.1.8. Strategies to reduce CLABSI:

- Prefer the upper extremity for catheter insertion. Avoid femoral route for central venous cannulation.
- If the catheter is inserted in a lower extremity site, replace to an upper extremity site as soon as possible.
- Use maximal sterile barrier precautions (cap, mask, sterile gown and sterile gloves) and a sterile full-body drape while inserting CVCs, peripherally inserted central catheters, or guidewire exchange.
- Clean skin with more than 0.5% chlorhexidine preparation with alcohol (usually 2% chlorhexidine with 70% w/v ethanol) before CVC, arterial catheter insertion, etc.
- Use chlorhexidine/silver sulfadiazine or minocycline/rifampin-impregnated CVCs when the catheter is expected to remain in place for more than 5 days and only if the

bloodstream infection rates are high in the unit despite successful implementation of measures to reduce CLABSI.

- Use ultrasound-guided insertion if technology and expertise are available.
- Use either sterile gauze or sterile, transparent, semipermeable dressing to cover the catheter site. Replace the catheter site dressing only when the dressing becomes damp, loosened, or visibly soiled
- Evaluate the catheter insertion site daily and check if a transparent dressing is present and palpate through the dressing for any tenderness.
- Insertion date should be put on all vascular access devices.
- Use 2% chlorhexidine wash daily for skin cleansing to reduce CLABSI.
- Use needleless intravascular catheter access systems and avoid stopcocks. Closed catheter access systems should be preferred to open systems.
- Clean injection ports with an appropriate antiseptic (chlorhexidine, povidone-iodine, an iodophor, or 70% alcohol), accessing the port only with sterile devices. Cap stopcocks when not in use.
- Assess the need for the intravascular catheter daily and remove when not required.
- Peripheral lines should not be replaced more frequently than 72-96 h. Routine replacement of CVCs is not required.
- Replace administration sets, including secondary sets and add-on devices, every day in patients receiving blood, blood products, or fat emulsions.
- If other intravenous fluids are used, change no <96-h intervals and at least every 7 days.
- Needleless connectors should be changed frequently (every 72 h).
- Replace disposable or reusable transducers at 96-h intervals.

5.1.9. Strategies to reduce UTI

- Insert catheters only for appropriate indications.
- Follow aseptic insertion of the urinary catheter.

- Maintain a closed drainage system.
- Maintain unobstructed urine flow. At all times the urinary catheter should be placed and taped above the thigh and the urinary bag should hang below the level of the bladder.
- The urinary bag should never have floor contact.
- Changing indwelling catheters or drainage bags at fixed intervals is not recommended. Change only if there are clinical indications such as infection or obstruction, or when the closed system is compromised.
- Remove the catheter when it is no longer needed.

5.1.10. Cleaning and disinfection:

- High-quality cleaning and disinfection of all patient-care areas is important, especially surfaces close to the patient (e.g. bedrails, bedside tables, doorknobs and equipment)[10]
- Some pathogens can survive for long periods in the environment, particularly methicillin-resistant *Staphylococcus aureus* (MRSA), vancomycin-resistant *Enterococcus* (VRE), *Acinetobacter* species, *Clostridium difficile* and *norovirus*
- MOH and hospital approved disinfectants or detergents that best meet the overall needs of the ICU should be used for routine cleaning and disinfection.
- Frequency of cleaning should be as follows:
- Surface cleaning (walls) twice weekly.
- floor cleaning 2-3 times/day
- and terminal cleaning (patient bed area) after discharge or death.

5.1.11. Architecture and layout:

- Central air-conditioning systems are designed in such a way that recirculated air must pass through appropriate filters.
- It is recommended that all air should be filtered to 99% efficiency down to 5µm.
- Suitable and safe air quality must be maintained at all times. Air movement should always be from clean to dirty areas.

- It is recommended to have a minimum of six total air changes per room per hour, with two air changes per hour composed of outside air.
- Isolation facility should be with both negative- and positive-pressure ventilations.
- Clearly demarcated routes of traffic flow through the ICU are required.
- Adequate space around beds is ideally 2.5-3 m.
- Electricity, air, vacuum outlets/connections should not hamper access around the bed.
- Adequate number of washbasins should be installed.
- Alcohol gel dispensers are required at the ICU entry, exits, every bed space and every workstation.
- There should be separate medication preparation area.
- There should be separate areas for clean storage and soiled and waste storage and disposal.
- Adequate toilet facilities should be provided.

5.1.12. Organizational and administrative measures:

- Work with hospital administration for better patient to nurse ratio in the ICU.
- Policies for controlling traffic flow to and from the unit to reduce sources of contamination from visitors, staff and equipment.
- Waste and sharp disposal policy.
- Education and training for ICU staff about prevention of nosocomial infections.
- ICU protocols for prevention of nosocomial infections.
- Audit and surveillance of infections and infection control practices.
- Infection control team (multidisciplinary approach).
- Antibiotic stewardship.
- Vaccination of health care personnel.
- Curtain change policy.

6.0 RELATED POLICY / CROSS REFERENCES:

6.1. Guideline for isolation precautions: Preventing transmission of infectious agents in healthcaresettings.Availablefrom: http://www.cdc.gov/hicpac/pdf/isolation/Isolation2007.pdf

6.2. WHO guidelines on hand hygiene in health care: A summary. 2014. Mar 10, Available from: http://www.whqlibdoc.who.int/hq/2009/WHO_IER_PSP_2009.07_eng.pdf .

6.3. Guidelines for the prevention of intravascular catheter-related infections. Available from http://www.cdc.gov/hicpac/pdf/guidelines/bsi-guidelines-2011.pdf .

6.4. Guidelines for prevention of catheter-associated urinary tract infections. Available from http://www.cdc.gov/hicpac/pdf/CAUTI/CAUTIguideline2009final.pdf .

6.5. Circulation for disinfection and sterilization in healthcare facilities. 2008. Available from: http://www.cdc.gov/hicpac/pdf/guidelines/Disinfection_Nov_2008.pdf .

6.6. Guidelines for environmental infection control in health care facilities. Available from: http://www.cdc.gov/hicpac/pdf/guidelines/eic_in_HCF_03.pdf .

7.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA HEAD, INFECTION CONTROL	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR S.C.# 06-RN-8386	05 MAR 2019
	Dr. Roberto Gorge	Head of ICU		07 MAR 2019
	Dr. Ahmed Hassan	Medical Director	M-DIRECTOR	12 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Khaled B. AlMutairi	17 MAR 2019
Approved by	Dr. Adil Moteb Bib Omairah	Hospital Director		24 MAR 2019

8.0. POLICY AND PROCEDURE HISTORY

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	New	April 1,2019
Replaced by	New	April 1, 2019
Deleted	N/A	
Replaced by New Policy and Procedure	IDP-IC-023(1)	April 1, 2019

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
INFECTION CONTROL POLICY BEFORE PATIENT TREATMENT			APP-IC-001(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-001(3)	2
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To provide therapeutic environment that guarantees an infection-free services to eliminate any cross-contamination potentials before starting infection.

2.0 POLICY STATEMENT(S):

2.1. The hospital policy ensures that all standard infection control methods are followed at the beginning of each working day.

3.0 EQUIPMENT/MATERIAL/FORMS:

3.1. N/A

4.0 ROLES AND RESPONSIBILITIES:

4.1. N/A

5.0 PROCEDURE:

5.1. Prepare and clean instruments prior to use.

5.1.1. Each morning and before each shift, instruments should be check for efficiency and sterility.

5.1.2. Suction tubing should be flushed by placing the tube in a disinfectant solution.

5.2. Place disposable coverings (e.g. Self-adhering plastic cover) to prevent contamination of surfaces.

5.3. Make sure that a sufficient number of instruments are available in the clinic/ward.

6.0 RELATED POLICY / CROSS REFERENCES:

6.1. N/A

7.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Ms. Mirriam Liquanan	Infection Control Nurse	MIRRIAM F. LICUANAN RN 0281568 # 184454	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR Sc. # 06-RN-0286	05 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	07 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN	10 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		12 MAR 2019
Approved by	Dr. Adil Moteb Bib Omairah	Hospital Director		17 MAR 2019

8.0 POLICY AND PROCEDURE HISTORY

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	IC 6-1	April 1, 2012
Replaced by	APP-IC-001(2)	April 1, 2014
Deleted	APP-IC-001(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-001(4)	April 1, 2019

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
INFECTION CONTROL POLICY DURING PATIENT TREATMENT			APP-IC-002(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-002(3)	4
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To protect the health care provider from any infection potentials during and from any during the treatment.

2.0 POLICY STATEMENT(S):

2.1. The hospital policy should apply all precautions during patient's treatment regardless of patient medical treatment.

3.0 EQUIPMENT/MATERIAL/FORMS:

3.1. N/A

4.0 ROLES AND RESPONSIBILITIES:

4.1. N/A

5.0 PROCEDURE:

5.1. Treat all patients as potentially infectious.

5.2. Use protective attire and barrier techniques when contact with body fluids or mucous membranes are anticipated.

5.2.1. Wear gloves and changes them between patients or during patient treatment if they become torn, cut or punctured.

5.2.1.1. Clean and sterile gloves used should not contact contaminated surfaces and contaminated gloves should not contact uncovered surfaces or surfaces which are difficult to be disinfected.

5.2.2. Wear mask and change it between patients or during patient treatment if it becomes wet.

5.2.3. Wear protective eyewear or protective shield and disinfect it (if it is not disposable) between patients.

5.2.4. Wear uniforms, laboratory coats, or gowns that cover personal clothing and skin (e.g. forearms) likely to be soiled with blood or body fluids.

5.2.4.1. These protective coverings and other coverings worn during patient treatment such as head coverings should not be worn outside the clinic/procedure room.

5.3. Use the "unit-dose concept":

5.3.1. The dispensing of an amount of a material or device which is sufficient to accomplish the procedure and where excess may be discarded at completion is commonly referred to as a "unit-dose".

5.3.2. Items such as cotton rolls, cotton pellets, gauze, petroleum jelly, impression materials, and waxes are all amenable to unit dosage.

5.3.3. When preparing the operating table, supplies should be placed using the "unit-dose concept". Cotton dispensers, bur stands and other containers should not be placed on the table.

5.3.4. Sterile tweezers should be used to pick up materials such as gutta-percha cones, crowns, bands, wooden wedges from inside packages. Contaminated crowns, bands and other items should not be returned to their containers.

5.3.5. It is better to do the previous step and prepare all the items needed by a non-contaminated assistant before starting the intended clinical procedure.

5.4. Use disposable items

5.4.1. It is preferable to use disposable items as much as possible (e.g. three-way syringe tips, saliva ejector tips, cups, brushes, and syringes).

5.4.2. Disposable items should be used only once and disposed of correctly.

5.5. Minimize formation of droplets, spatters, and aerosols.

5.5.1. Reduce the amount of droplets and aerosols exiting during treatment by using:-

5.5.1.1. Rubber dam isolation

5.5.1.2. High volume evacuator

5.5.1.3. By having the patient rinse with antimicrobial mouthwash before treatment.

5.6. Protect hands

5.6.1. Wash hands before gloving and after gloves are removed:

5.6.1.1. Protect hands by the use of antimicrobial soap.

5.6.1.2. With knee or hand operator dispensers.

5.6.2. Handle sharp items carefully

5.6.3. Do not bend or break disposable needles.

5.6.4. When needles are recapped, use a method that protects hands from injury such as using a holder for the needle cover or using the single-handed resheathing technique.

6.0 RELATED POLICY / CROSS REFERENCES:

6.1. N/A

7.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Ms. Mirraim Liquanan	Infection Control Nurse	MIRRIAM F. LICUANAN RN 0281568 # 184454	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR Sc. # 06-RN-9386	05 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA رئيس مكافحة العدوى	07 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR	10 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Mr. Khalid Bandar Al Mutairi Quality Director	12 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		17 MAR 2019

8.0.POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	IC 7-1	April 1, 2012
Replaced by	APP-IC-002(2)	April 1, 2014
Deleted	APP-IC-002(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-002(4)	April 1, 2019

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION INFECTION CONTROL POLICY AFTER PATIENT TREATMENT			POLICYNUMBER &VERSION APP-IC-003(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-003(3)	3
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To avoid cross contamination among patients receiving treatment.

2.0 POLICY STATEMENT(S):

2.1. The hospital policy shall have step by step guidelines to be followed in eliminating different patient's cross-infection.

3.0 EQUIPMENT/MATERIAL/FORMS:

3.1. N/A

4.0 ROLES AND RESPONSIBILITIES:

4.1. N/A

5.0 PROCEDURE:

5.1. Wear puncture and chemical resistance/heavy-duty rubber gloves for instrument cleaning and decontamination procedures.

5.2. Decontaminate environmental surfaces.

5.2.1. Wipe work surfaces and countertops with absorbent toweling to remove debris, and dispose of this toweling appropriately.

5.2.2. Then, disinfect with suitable chemical disinfectant.

5.2.3. Do not use chemical sterilant (high-level disinfectant) for environmental surface disinfection or as holding solution.

5.3. Packaging materials, cassettes, or trays should be provided and labeled by date of sterilization and marked for identification.

5.3.1. Sterile packages should be stored in a clean, dry place. Packages which have become soiled, wet, or torn should have their contents re-sterilized.

5.4. General cleaning

5.4.1. Cleaners should do their work according to a schedule followed by the Cleaner Supervisor.

5.4.2. Sinks should be cleaned and disinfected daily.

5.4.3. Floor should also be cleaned and disinfected daily.

5.4.4. Walls, windows, and doors should be cleaned monthly.

5.5. Remove contaminated wastes appropriately

5.5.1. All types of waste such as general, sharps, hazardous and biohazards (infectious, pathological, blood and blood soaked wastes) should be labeled with the universal biohazard symbol and handled accordingly.

5.5.1.1. Contaminated wastes should be placed in receptacles lined with sturdy impervious plastic bags and covered with a properly fitted lid that can be opened with a foot pedal.

5.5.1.2. The plastic bag should then be sealed properly before disposal.

5.5.2. Place disposable needles, scalpels, and other sharp items intact into puncture-resistant, closable containers before disposal.

5.5.3. Chemical wastes should be placed in strong container made of a material that does not react with the material to be discarded.

5.5.4. Contaminated wastes should be disposed in a safe way that is not harmful to humans or to the environment.

6.0 RELATED POLICY / CROSS REFERENCES:

6.1. N/A

7.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Ms. Mirriam Liquanan	Infection Control Nurse	MIRRIAM F. LICUANAN RN 0281568 # 184454	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA B. LIÑAN NURSING DIRECTOR Sc. # 06-RN-8386	05 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	07 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No: 13-R-M-0046094	10 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Mr. Khalid Bandar Al Mutairi Quality Director	12 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		19 MAR 2019

8.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	IC 8-1	April 1, 2012
Replaced by	APP-IC-003(2)	April 1, 2014
Deleted	APP-IC-003(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-003(4)	April 1, 2019

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
STANDARD PRECAUTION			APP-IC-004(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1,2019	March 1, 2022	APP-IC-004(3)	8
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To prevent healthcare associated transmission of infectious agents among patients and healthcare personnel.

1.2. To reduce the risk of transmission of microorganisms from both known and unknown infection sources.

2.0 DEFINITION (S):

2.1. ***Standard precaution*** – are precautions which are intended to be applied to the care of all patients in all healthcare setting regardless of the suspected or confirmed presence of an infectious agent.

3.0 POLICY STATEMENT(S):

3.1. Standard precautions shall be applied in the care of all patients regardless of diagnosis or presumed infection status when contact with blood, body fluids, secretions, excretions, mucous membranes or non-intact skin is anticipated.

3.2. New elements of practice (3) considered as standards of care shall be used in addition to standard precautions.

4.0 EQUIPMENT/MATERIAL/FORMS:

4.1. Hand hygiene facilities.

4.2. Personal protective equipment (PPE)

4.3. Respiratory hygiene/cough etiquette

4.4. Safe working practices.

4.5. Environmental cleaning.

4.6. Safe injection practices.

4.7. Patient placement.

4.8. Medical wastes receptacles

4.9. Attachment 1: Expanded Precaution Boards: Contact, Droplet, Airborne

5.0 ROLES AND RESPONSIBILITIES:

5.1. Healthcare personnel

It is the responsibility of the nurse on duty and other healthcare workers involve in the management of patient care to implement and adhere to infection prevention and control practices in relation to standard precautions.

5.2. Infection Control Practitioner

Monitor compliance to infection prevention and control practice

6.0 PROCEDURE:

6.1 The following are procedures to be followed for implementation of standard precautions.

6.1.1. **Hand Hygiene (HH)** – perform hand hygiene as per World Health Organization guidelines.

6.1.2. **Personal Protective Equipment (PPE)**

Use appropriate personal protective equipment in any activity to prevent blood or other potentially infectious materials (OPIM) from making direct contact with an employee's clothing or body to prevent skin and mucous membrane exposure.

6.1.3. **Cough etiquette**

Early implementation of the infection control measures needs to occur at the first point of entry within healthcare setting & maintained throughout the duration of visit.

The five main elements of the respiratory hygiene are to be implemented are as follows:

i. Education of the HCWs, Pts and visitors on the s/s of respiratory illness.
ii. Posted signs in Arabic & English for prevention of respiratory illness.
iii. Easy availability of the source measures (tissues & masks).
iv. Easy & frequent availability of the Hand Hygiene.
v. Encourage the pts and the visitors with respiratory s/s to sit apart from the other people, more than 3 feet apart or in a separate area if feasible.

6.1.4. **Safe work practices.**

In an effort to limit the exposure to the infectious microorganisms, HCWs must take care to keep the gloves and ungloved hands from touching their own mucous membranes. Patients should be positioned to direct any splatters or sprays of pt blood, body fluids, secretions or excretions away from the face of HCWs.

6.1.5. **Environmental cleaning.**

6.1.5.1. Routine care, cleaning and disinfection of environmental surfaces, bed rails, bedside equipment and frequently touched surfaces.

6.1.5.2. Use hospital approved disinfectants for clinical and environmental use.

6.1.5.3. Cleaning of room should be daily and after discharge.

6.1.6. **Safe injection practices.**

I. HCWs should always use sterile, single use disposable syringe and needle for each injection given.
II. Sterile packing should only be opened immediately prior to use & the vial access diaphragm should be disinfected with approved antiseptic prior to accessing.
III. Single dose vials be used over multidose vials.

IV. Used needles should never be recapped, bent or broken.

6.1.7. **Patient placement.**

a) In the event if there is increased risk of transmission of microorganisms the pt should be place in single room if available.

b) If no single room then pt should be placed in a room with minimum of 3 feet distance apart from the other pt with same s/s (cohorting of pts).

6.1.8. **Handling and Disposal of Contaminated Items**

Handle and dispose contaminated items safely. These may include the following:

6.1.8.1. Needles/sharps – disposed of used sharps items immediately after use in an approved puncture resistant container at the point of use or as close to point of use as possible.

6.1.8.2. Linen – handle and transport linens in a manner to prevent skin/mucous membrane exposure, contamination of clothing or transferring of microorganism to other patients/environment.

6.1.8.3. Blood and body fluid spills – follow safe and effective management of blood and body fluid spillage.

6.1.9. Hazardous medical waste –place biomedical waste in identifiable bags on appropriate containers. Patient Care Equipment

6.1.9.1. Handle used patient care equipment in a manner that prevents skin and mucous membrane exposures, contamination of clothing and transfer of microorganisms to other patients and environment.

6.1.9.2. **Do not re-use disposable equipment.**

6.1.9.3. Ensure that re-usable equipments are properly reprocessed by CSSD before using on another patient. Follow the policy for SUD

7.0 RELATED POLICY / CROSS REFERENCES:

7.1. Association for Professionals in Infection Control and Epidemiology, Inc. 3rd Edition, 2017; Chapter 28: Isolation Systems: Recommendation for Isolation Precautions in Hospitals.

7.2. Centers for Disease Guidelines for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Setting 2007.

8.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	3 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR Sc. # 06-RN-8586	5 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	3 MAR 2019
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	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Khaled B. AlMutairi Quality Director	9 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		4 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	IC 9-1	April 1, 2012
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Deleted	APP-IC-004(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-004(4)	April 1,2019

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
HAND HYGIENE			APP-IC-005(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-005(3)	16
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE

1.1.Hand washing is the single most effective deterrent to the spread of infection.

2.0 DEFINITION (S):

2.1.***Hand hygiene*** is any action taken to cleanse the hands. To emphasize the importance of hand hygiene in preventing the transmission of infectious microorganisms and provide the indications and techniques for proper hand hygiene.

2.2.***Comments*:** Hands may easily become contaminated with infectious microorganisms which can enter the body through a break in the skin or be transmitted to a susceptible host and cause infection. All personnel –physicians, nurses, technologists and others who are responsible for complying with the hand hygiene policy should lead by example and call observed infractions to the attention of offenders. Several methods are used for hand hygiene among which, alcohol based hand rubs can be used if hands are not visibly soiled. Artificial nails and chipped nail polish may be associated with an increase in the number of bacteria on finger nails and should not be used.

3.0 POLICY STATEMENT(S):

3.1.Hospital personnel shall wash their hands to prevent the spread of infections:

3.1.1. When coming on duty.

3.1.2. Before applying and after removing gloves.

3.1.3. When the hands are obviously soiled.

3.1.4. Between handling of individual patients.

3.1.5. Before contact about the face and mouth of patients and between body sites.

3.1.6. Before and after personal use of the toilet.

3.1.7. After sneezing, coughing, blowing, or wiping the nose or mouth.

3.1.8. On leaving isolation area or after handling articles from an isolation area.

3.1.9. After handling used sputum containers, soiled urinals, catheters, and bedpans.

3.1.10. Before eating.

3.1.11. On completion of duty.

4.0 EQUIPMENT/MATERIAL/FORMS:

4.1. Attachment 1: The 5 Moments of Hand Hygiene (WHO)

4.2. Attachment 2: Hand Washing Competency list

4.3. Attachment 3: Hand Washing Procedure

4.4. Attachment 4: Hand Rub Procedure

4.5. Attachment 5: Surgical Hand Washing

5.0 ROLES AND RESPONSIBILITIES:

5.1. Hospital Administrator:

5.1.1. Must ensure a continuous availability of all resources as (safe, continuous water supply at all outlets, soap, skin moisturizers, and a readily accessible alcohol-based hand rub (ABHR) at the point of patient care) to allow for the recommended hand hygiene practice to be implemented.

5.1.2. Ensuring compliance of this Policy and Procedure as everyone's responsibility.

5.1.3. Support infection control department employees in performing training for different infection control activities, including the implementation of a hand hygiene promotional program.

5.2. Infection Control Staff :

5.2.1. Provide education / training for staff and management on these guidelines.

5.2.2. Act as a resource for guidance and support when advice on hand hygiene is required.

5.2.3. Monitor hand hygiene practice compliance and present compliance results to hospital administrators.

5.2.4. Ensure posters featuring when to perform hand hygiene and the steps included in the hand hygiene process, etc., are displayed in relevant, prominent areas.

5.3. Ward Nurse Supervisor:

5.3.1. Consider and apply hand hygiene practice as an objective within the department.

5.3.2. Ensure availability of a continuous supply of soap, paper towels, skin moisturizers, and a readily accessible alcohol-based hand rub (ABHR) at the point of patient care in the wards / or department under their supervision.

5.3.3. Advise patients and visitors on hand hygiene practices.

5.3.4. Report to infection control staff any incidents where failures in hand hygiene have occurred of where there are product / facilities issues that affect adequate hand hygiene practice.

5.4. All Staff Must:

5.4.1. Advise the patients, and visitors of any infection control requirements such as hand hygiene.

5.4.2. Attend any mandatory or update infection control education sessions.

5.4.3. Consider and apply hand hygiene as an objective within the department.

5.4.4. Report to the infection control staff any incidents where failures in hand hygiene have occurred or where there are product / facilities issues that affect adequate hand hygiene practice.

5.5. Visitors:

5.5.1. Comply with the hand hygiene practice at least before and after visiting.

6.0 PROCEDURE:

6.1. Indications for Hand Hygiene WHO five opportunities/moments for Hand Hygiene:

6.1.1. Before patient contact

6.1.2. Before aseptic task

6.1.3. After body fluid exposure risk

6.1.4. After patient contact

6.1.5. After contact with patient surroundings/environment

6.2.Other opportunities for Hand Hygiene:

6.2.1. When hands are visibly soiled

6.2.2. After contact with a source of microorganisms (body fluids and substances, mucous membranes, non-intact skin, that are likely to be contaminated)

6.2.3. After removing gloves

6.2.4. Before and after: smoking, eating or preparing food

6.2.5. Before leaving patient's room

6.2.6. After bodily functions: use of toilet, blowing nose, sneezing, etc.

6.2.7. If moving from a contaminated body site to a clean body site during patient care Hands and other skin surfaces exposed to blood or body fluids must be cleansed as soon as patient safety permits. Hand hygiene procedures utilize different methods for cleaning such as:

6.3.Hand Washing Procedure:

6.3.1. Wash hands for a minimum of 40 to 60 seconds

6.3.2. Remove excess jewelry

6.3.3. Select a comfortable eater temperature

6.3.4. Wet hands with running water

6.3.5. Apply plain soap, or antimicrobial soap to cover all surfaces of the hands

6.3.6. Rub hands palm to palm

6.3.7. Right palm over left dorsum with interlaced fingers and vice versa

6.3.8. Palm to palm with fingers interlaces

6.3.9. Backs of fingers to opposing palms with fingers interlaced

6.3.10. Rotational rubbing of left thumb clasped in right palm and vice versa

6.3.11. Rotational rubbing backwards and forwards with clasped fingers of right hand in left palm and vice versa

6.3.12. Rinse the hands with running water to remove all soap residue holding hands in upward position over sink

6.3.13. Dry the hands with a paper towel

6.3.14. Turn the faucet off with the used paper towel

6.4.Hand antiseptic procedure:

Using antimicrobial soap wash hands for a minimum of 1-2 minutes:

6.4.1. Remove excess jewelry

6.4.2. Select a comfortable water temperature

6.4.3. Wet hands with running water

6.4.4. Apply antimicrobial soap to cover all surfaces of the hands

6.4.5. Rub hands palm to palm

6.4.6. Right palm over left dorsum with interlaced fingers and vice versa

6.4.7. Palm to palm with finger interlaces

6.4.8. Backs to fingers to opposing palms with fingers interlaced

6.4.9. Rotational rubbing of left thumb clasped in right palm and vice versa

6.4.10. Rotational rubbing backwards and forwards with clasped fingers of right hand in left palm and vice versa

6.4.11. Rinse the hands with running water to remove all soap residue, holding hands in upward position over sink

6.4.12. Dry the hands with a paper towel

6.4.13. Turn the faucet off with the used paper towel

Using alcohol based hand antiseptic rub for a minimum of 20-30 seconds:

6.4.14. Apply to dry hands that are not visibly soiled

6.4.15. Rub hands vigorously to apply hand antiseptic to all surfaces of hands (as in steps 5 to 10 above)

6.4.16. Allow hands to dry.

6.5.Type of Hand Hygiene:

6.5.1. Wash hands with plain soap for patient examination and non surgical techniques

6.5.2. Wash hands with antimicrobial soap or alcohol rub for surgical / sterile procedures

6.5.3. Cleanse hands with alcohol-based antiseptic rub (waterless)

6.5.4. Bar soap is not acceptable

6.6.Agents used for Hands Hygiene:

6.6.1. Water

6.6.2. is described as the universal solvent for a large number of substances

6.6.3. used alone, it cannot remove soil from hands

6.7.Drying methods

6.7.1. is critical factor to determine level of bacterial residue

6.7.2. Use of paper towels, and /or hot air dryers

6.7.3. Do not reuse or share hand drying towels

6.7.4. Pat dry the skin rather than rub it, to avoid cracking (skin excoriation may lead to bacteria colonizing the skin)

6.8.Plain (non-antimicrobial) soap

6.8.1. are detergent based which will remove lipid and adhering dirt and organic matter

6.8.2. have no antimicrobial activity

6.8.3. can remove transient flora from the skin

6.9.Use of Alcohol Based (60-70%) Hand Rubs:

6.9.1. If hands are visibly soiled or contaminated with organic matter, used soap and water hand washing procedure.

6.9.2. All rings should be removed when using alcohol hand rub.

6.9.3. Apply adequate amount of alcohol hand rub onto palm of hand.

6.9.4. Rub vigorously over all surfaces until dry (about 30 seconds).

6.9.5. alcohol-based hand antiseptic contain either ethanol, isopropanol or n-propanol or a combination of two of these products have the ability to denature proteins most effective in solutions containing 60-80% alcohol

(higher concentration is less effective)are rapidly germicidal are available in gels, liquid foam.

6.10. Other antiseptic soaps

6.10.1. Chlorhexidine

6.10.2. Chlorhexidine or Para-Chloro-Meta-Xylenol (PCMX Hexachlorophene)

6.10.3. Iodine and Iodophors

6.10.4. Triclosan

6.11. Care of Hands:

6.11.1. Avoid large containers of hand lotion for group use; never top up containers of hands item

6.11.2. Ensure that the skin on your hands is intact. Cover non-intact skin areas with an occlusive dressing.

6.11.3. Do not use petroleum based lotions as they may interfere with glove integrity.

6.12. Medical Assessment:

6.12.1. Any suspicion of dermatological condition must be evaluated by an Employee Health Physician or appropriate medical service.

6.12.2. HCWs that have exudates lesions or weeping dermatitis should refrain from all direct patient care and from handling patient care equipment until the condition resolves.

6.13. Hand Washing Facilities:

6.13.1. Sinks and hand washing facilities must be:

6.13.2. Conveniently located throughout Hospital facilities, i.e., in each patient room, examination room, and all patient care areas;

6.13.3. Located adjacent to rooms where diagnostic or invasive procedures are performed.

6.13.4. Sinks must be located inside isolation rooms and in the anterooms of isolation rooms;

6.13.5. Paper towel containers must be refilled daily and as often as necessary to maintain an adequate supply.

6.14. Health-care worker (HCW) educational and motivational programs:

6.14.1. As part of an overall program to improve hand hygiene practices of HCW's, educate personnel regarding the types of patient care activities that can result in hand contamination and the advantages and disadvantages of various methods used to clean their hands

6.14.2. Monitor HCW's adherence with recommended hand hygiene practices and provide personnel with information regarding their performance.

6.14.3. Encourage patients and their families to remind HCW's to decontaminate their hands.

6.14.4. Do not add soap to a partially empty soap dispenser. This practice of "topping off dispensers can lead to bacterial contamination of soap.

7.0. RELATEDPOLICY / CROSS REFERENCES:

7.1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 27: Hand Hygiene. In APIC Text of infection control and epidemiology (4th ed.).
7.2. WHO Guidelines on Hand Hygiene in Healthcare 2009 (World Alliance for Patient Safety).
7.3. Patrick M and Wicklin S. Implementing AORN recommended practices for hand hygiene. AORN Journal, 2012; 95:4.

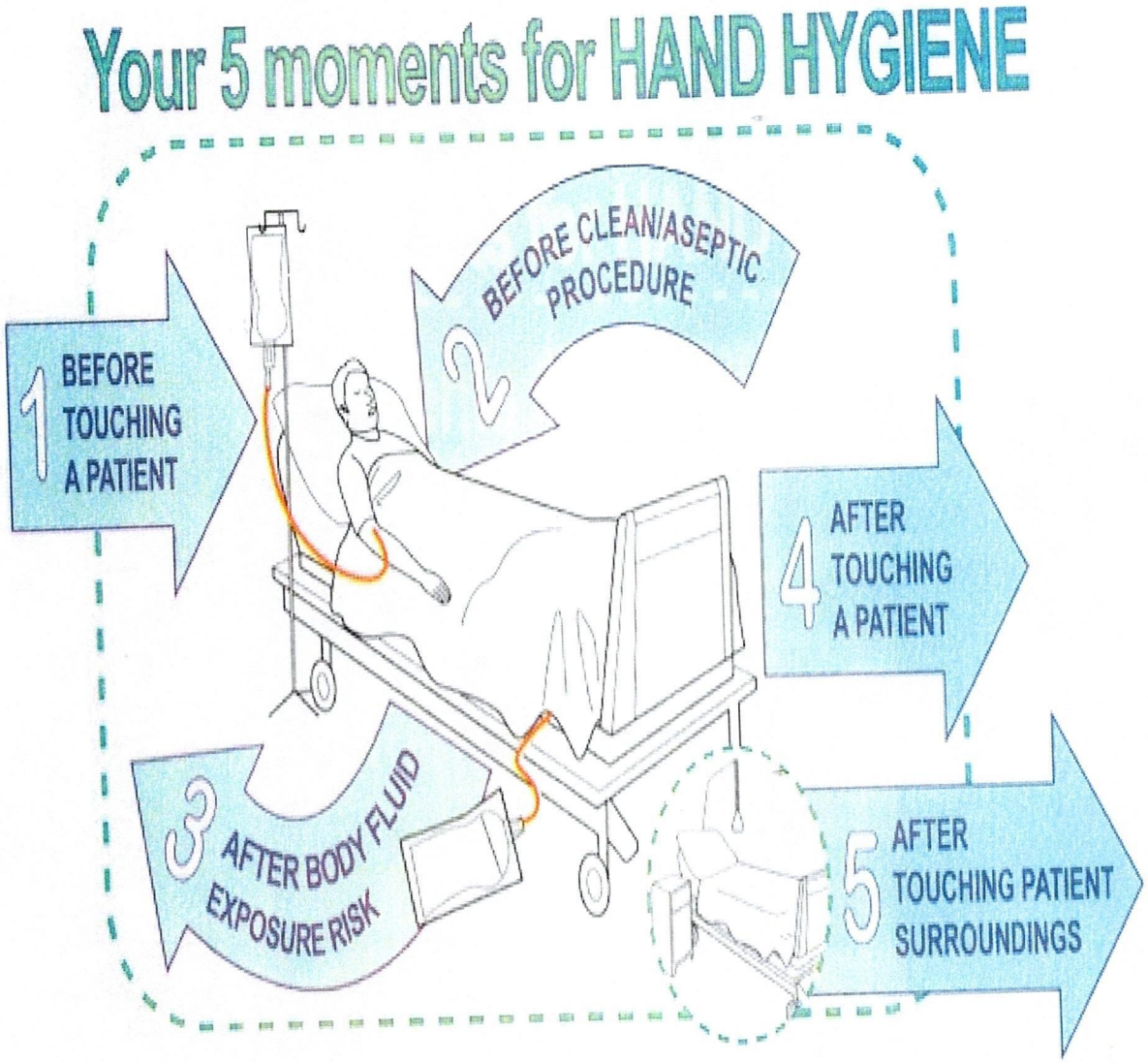
8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR	07 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR	12 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Mr. Khalid B. AlMutairi	17 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		24 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	IC10-1	April 1, 2012
Replaced by	APP-IC-005(2)	April 1, 2014
Deleted	APP-IC-005(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-005(4)	April 1, 2019

Attachment 1: The 5 Moments of Hand Hygiene (WHO)



Based on WHO poster 'Your 5 Moments for Hand Hygiene' and reproduced with their kind permission

ATTACHMENT 2.

Competency Checklist for Hand Hygiene

Competency Checklist for Hand Hygiene			
Steps	**Performance Checklist**	**Competent**	**Non competent**
1	Apply a palm full of the alcohol gel in a cupped hand.		
2	Rub hands palm to palm.		
3	Right palm over left dorsum with interlaced fingers and vice versa.		
4	Palm to palm with fingers interlaced.		
5	Backs of fingers to opposing palms with fingers interlocked.		
6.	Rotational rubbing of left thumb clasped in right palm and vice versa.		
7.	Rotational rubbing, backwards and forwards with clasped fingers of right hand in the left palm and vice versa.		
8.	Dry your hands.		

Date: _____

Name of Staff: _____ Computer Number: _____ Signature:_____

Trained Observer: _____ Computer Number: _____Signature:_____

ATTACHMENT 3.

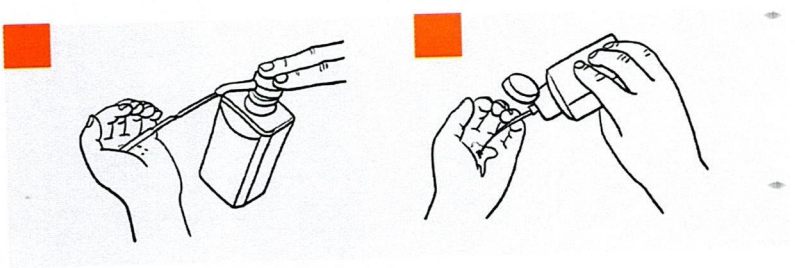
Hand Rubbing Technique

Hand Hygiene Technique with Alcohol - Based Formulation

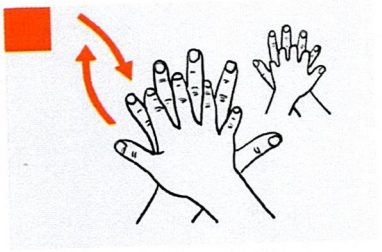
How to Hand rub?

RUB HANDS FOR HAND HYGIENE! WASH HANDS WHEN VISIBLY SOILED

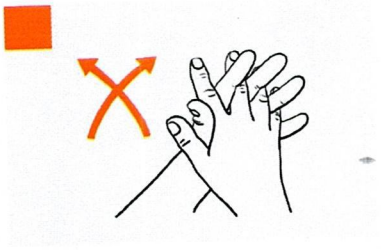
Duration of the entire procedure: 20-30 seconds



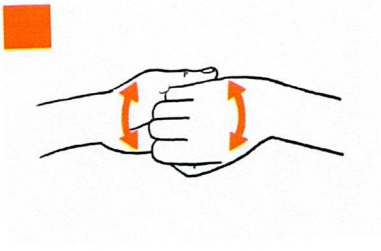
Apply a palmful of the product in a cupped hand, covering all surfaces.



. Right palm over left dorsum with interlaced fingers and vice



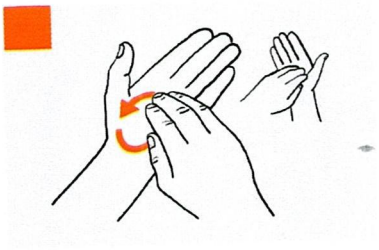
Palm to palm with fingers interlaced.



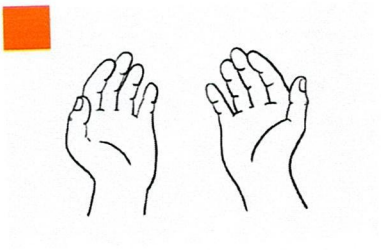
Back of fingers to opposing palms



Rotational rubbing of left thumbs clasped in right palm and vice versa



Rotational rubbing, backwards and forwards with clasped fingers to right hand in left palm and vice versa.



Once dry, your hands are safe

ATTACHMENT 4.

Hand Washing Technique

Handwashing Technique with Soap and Water

How to Handwash?

WASH HANDS ONLY WHEN VISIBLY SOILED OTHERWISE, USE HANDRUB!

Duration of the entire procedure: 40-60 seconds



ATTACHMENT 5.

Surgical Hand Hygiene

The hand rubbing technique for surgical hand preparation must be performed on perfectly clean, dry hands.
On arrival in the operating theatre and after having donned theater clothing (cap/hat/bonnet and mask), hands must be washed with soap and water.
After the operation when removing gloves, hands must be rubbed with an alcohol-based formulation or washed with soap and water if any residual talc or biological fluids are present (e.g. the glove is punctured).

surgical procedures may be carried out one after the other without the need for handwashing, provided that the hand rubbing technique for surgical hand preparations is followed (Images 1 to 17.



1.
Put approximately 5 ml (3 doses) of alcohol-based hand rub in the palm of your left hand, using the elbow of your other arm to operate the other dispenser



2.
Dip the fingertips of your right hand in the hand rub to decontaminate under the nails (5 seconds)



3.
Images 3-7: Smear the hand rub on the right forearm up to the elbow
Ensure that the whole skin area is covered by using circular movements around the forearm until the hand rub has fully evaporated (10-15 seconds)



4.
See legend for Image 3



5.
See legend for Image 3



6.
See legend for Image 3

CONTINUED



7.
See legend for Image 3



8.
Put approximately 5 ml (3 doses) of alcohol-based hand rub in the palm of your right hand, using the elbow of your another arm to operate the dispenser



9.
Dip the fingertips of your left hand in the handrub to decontaminate under the nails (5

seconds)

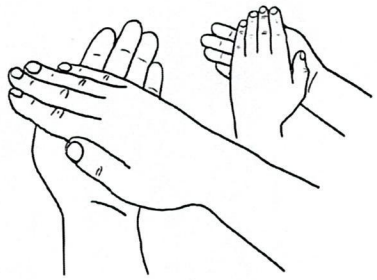


10
Smear the hand rub on the left forearm up to the elbow. Ensure the whole skin area is covered by using circular movements around the forearm until the hand rub has fully evaporated (10-15 seconds)

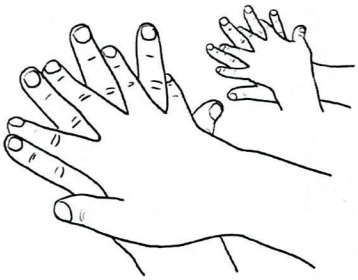


11.
Put approximately 5 ml (3 doses) of alcohol-based hand rub in the palm or your left hand, using the elbow of your other arm to operate the distributor Rub both hands at the same time up to the wrists and ensure that all the steps represented in the Images 12-17 are followed (20-30 seconds)

CONTINUED



12.
Cover the whole surface of the hands up to the wrist with alcohol-based hand rub, rubbing palm against palm with a rotating movement



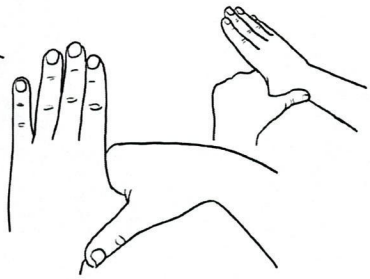
13.
Rub the back of the left hand, including the wrist, moving the right palm back and forth, and vice versa.



14.
Rub palm against palm back and forth with fingers interlinked.



15.
Rub the back of the fingers by holding them in the palm of the other hand with a sideways back and forth movement



16.
Rub the thumb of the left hand by rotating it in the clasped palm of the right hand and vice versa



17.
When the hands are dry, sterile surgical clothing and gloves can be donned.

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
PERSONAL PROTECTIVE EQUIPMENT (PPE)			APP-IC-006(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-006(3)	15
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To protect both Healthcare Workers (HCW'S) and patients from exposure to infectious agent and reduce the opportunities for transmission of microorganisms in healthcare facilities.

2.0 DEFINITION (S):

2.1. ***Personnel Protective Equipment (PPE)*** is a specialized clothing or equipment worn by an employee for protection against infectious materials.

2.2. ***Barrier precaution*** – is another term for PPE. This refers to a variety of barriers and respirators used alone or in combination to protect mucous membranes, airways, skin or clothing from contact with infectious agents.

3.0 POLICY STATEMENT(S):

3.1. Personal Protective Equipment must always be available in all departments to protect

Healthcare personnel from exposure to infectious agents during healthcare activities.

3.2. Healthcare workers shall decide which Personal Protective Equipment is most appropriate for the task / situation, depending on what the wearer might be exposed to, e.g. blood/other body fluids

3.3. PPE.IN general: Types of PPE Used in Healthcare Settings:

3.3.1. Gloves – protect hands

3.3.2. Gowns/aprons – protect skin and/or clothing

3.3.3. Masks and respirators– protect mouth/nose

3.3.4. Respirators – protect respiratory tract from airborne infectious agents

3.3.5. Goggles – protect eyes

3.3.6. Face shields – protect face, mouth, nose, and eyes

3.4. Factors Influencing PPE Selection

3.4.1. Type of exposure anticipated

3.4.1.1.Splash/spray versus touch

3.4.1.2.Category of isolation precautions

3.4.2. Durability and appropriateness for the task

3.4.3. Fit

3.5. Key Points about PPE

3.5.1. Don before contact with the patient, generally before entering the room

3.5.2. Use carefully – don't spread contamination

3.5.3. Remove and discard carefully, either at the doorway or immediately outside patient room; remove respirator outside room

3.5.4. Immediately perform hand hygiene.

3.6. Sequence for donning PPE

3.6.1. Hand hygiene first

3.6.2. Gown

3.6.3. Mask or respirator

3.6.4. Goggles or face shield

3.6.5. Gloves

3.7. 'Contaminated" and "Clean" Areas of PPE

3.7.1. Contaminated – outside front

Areas of PPE that have or are likely to have been in contact with body sites, materials, or environmental surfaces where the infectious organism may reside.

3.7.2. Clean – inside, outside back, ties on head and back

3.7.3. Areas of PPE that is not likely to have been in contact with the infectious organism.

3.8.Sequence for Removing PPE

3.8.1. Gloves

3.8.2. Face shield or goggles

3.8.3. Gown

3.8.4. Mask or respirator

3.9.Where to Remove PPE

3.9.1. at doorway, before leaving patient room or in anteroom

3.9.2. Remove respirator outside room, after door has been closed

3.10. Hand Hygiene

3.10.1. Perform hand hygiene immediately after removing PPE. If hands become visibly contaminated during PPE removal, wash hands before continuing to remove PPE

3.10.2. Wash hands with soap and water or use an alcohol-based hand rub.

3.10.3. PPE is available to protect you from exposure to infectious agents in the healthcare workplace Know what type of PPE is necessary for the duties you perform and use it correctly.

4.0. EQUIPMENT/MATERIAL/FORMS:

4.1.PPE- Gloves – sterile / non-sterile, Gown / apron, Mask and respirators – N95, surgical masks, footwear (shoe cover or boots), Head caps, Eyewear – goggles / glasses and face shield.

4.2.Antimicrobial/ Plain soap /Alcohol-based hand rub

5.0. ROLES AND RESPONSIBILITIES:

5.1. Head Nurse

5.1.1. It is the responsibility of the all head of the department to ensure that adequate resources are in place to allow recommended infection prevention and control measures such as PPE to be implemented.

5.1.2. Ensure the adequate supply of stock by regular checking. Inadequate supply to be reported to IPCD staff or supervisors through the designed checklist form in advance.

5.2. Supervisors:

5.2.1. Assure the adequacy of the PPE; proper fit protection, maintenance, and sanitation.

5.2.2. Ensure every employee knows how to use their PPE correctly.

5.3. Infection control practitioner:

5.3.1. Provide education for staff and management on this policy

5.3.2. Act as a resource for guidance and support when advice on PPE is required

5.3.3. Provide advice on individual risk assessments for PPE decisions.

5.4. All Ward Staff: Must follow PPE policy and procedure and advice the patient/client or visitors of any infection control requirements with regards to the proper use of PPE.

6.0. PROCEDURE:

6.1. Use of Gloves:

6.1.1. Use gloves when anticipating direct contact with blood or body fluids, mucous membranes, non-intact skin and other potentially infectious material.

6.1.2. During direct contact with patients who are colonized or infected with pathogens transmitted by the contact route e.g., VRE, MRSA, RSV.

6.1.3. Use sterile gloves for procedures involving contact with normally sterile areas of the body. (e.g., any surgical procedure, vaginal delivery, invasive radiological procedures, performing vascular access, preparing total parenteral nutrition).

6.1.4. Use examination gloves for procedures that involve direct skin or mucous membrane contact with blood or body fluid, and in clinical situations like the following:

6.1.4.1 Procedures involving contact with mucous membrane, non - intact skin, and potential presence of highly infectious and dangerous organism.

6.1.4.2 IV insertion and removal.

6.1.4.3 Drawing blood

6.1.4.4 Pelvic and vaginal examination

6.1.4.5 Suctioning non closed systems of endotracheal tube

6.1.4.6 Handling and cleaning instrument, handling waste, cleaning blood spills. General purpose utility (rubber) gloves shall be worn by maintenance, housekeeping, laundry or non-medical personnel.

6.1.4.7 It maybe decontaminated and re-use if the integrity of the glove is not compromised.

6.1.4.8 It must be discarded when they become peeled, cracked, discolored, torn or punctured.

6.1.4.9 Do not wear the same pair of gloves for the care of more than one patient.

6.1.4.10 When wearing gloves, change or remove gloves during patient care when moving from a contaminated body site to a clean body site within the same patient.

6.1.4.11 Change or remove gloves after touching a contaminated site and before touching a clean site or the environment.

6.1.4.12 Change gloves as soon as they are torn or punctured.

6.1.5. Do's and Don'ts of Glove Use

6.1.5.1. Work from "clean to dirty"

6.1.5.2.Limit opportunities for "touch contamination" - protect you, others, and the environment

6.1.5.3.Don't touch your face or adjust PPE with contaminated gloves

6.1.6. Change gloves

6.1.6.1.during use if torn and when heavily soiled (even during use on the same patient)

6.1.6.2. after use on each patient

6.1.6.3.Discard in appropriate receptacle

6.1.6.4.Never wash or reuse disposable gloves

6.1.6.5. Don't touch environmental surfaces except as necessary during patient care.

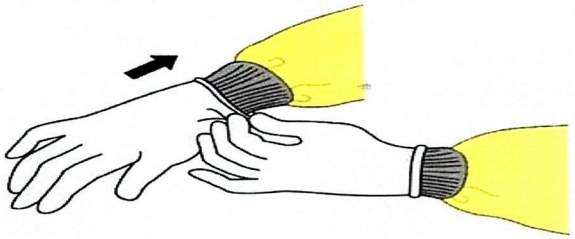
6.1.7. How to Don Gloves

6.1.7.1. Don gloves last

6.1.7.2.Select correct type and size

6.1.7.3.Insert hands into gloves

6.1.7.4.Extend gloves over isolation gown cuffs

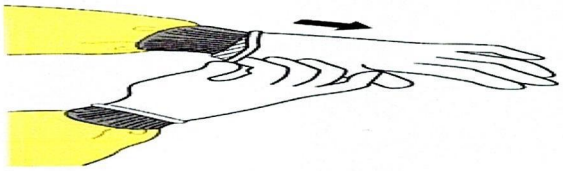


6.1.8. How to Remove Gloves

6.1.8.1.Grasp outside edge near wrist

6.1.8.2.Peel away from hand, turning glove inside-out

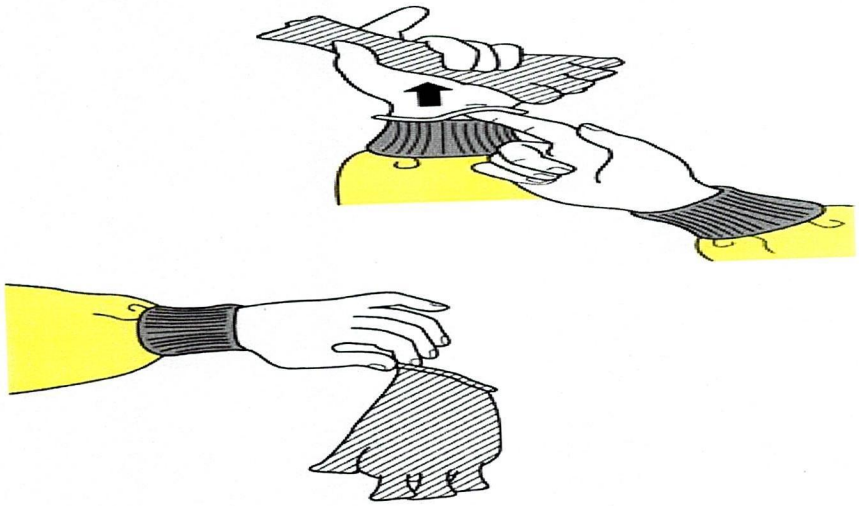
6.1.8.3.Hold in opposite gloved hand



6.1.8.4.Slide ungloved finger under the wrist of the remaining glove

6.1.8.5.Peel off from inside, creating a bag for both gloves

6.1.8.6.Discard



6.2.Use of Gowns / Aprons:

6.2.1. Gowns/aprons are readily available in all working areas at all times.

6.2.2. Do not use gown routinely. Wear only once and then discard at the appropriate receptacle.

6.2.3. The gown shall be large enough to cover the clothing entirely to protect all areas of exposed skin.

6.2.4. Remove soiled gowns promptly before leaving the room and immediate work area when contaminated with blood or body fluid.

6.2.5. Reusable items and non disposable aprons should have clearly documented cleaning schedule, (e.g. laundering must be checked for cleanliness before being donned).

6.2.6. Sterile gowns are only necessary for performing invasive procedures such as central line insertion when changing dressings of patients with extreme extensive burns and in the performance of procedures requiring sterile technique.

6.2.7. Wear fluid resistant gowns during any procedure where there is a likelihood of splashes or contamination with blood or other body substances. Wear yellow gown during the following situations:

6.2.7.1. Worn by all healthcare workers in performing healthcare activities when splashes or chance of being soiled is not likely to occur.

6.2.7.2. Worn by visitors entering an isolation room or upon visiting a patient on isolation precautions.

6.2.7.3. Worn when handling patient-care-material, equipment or personal articles if contamination of clothing is likely to happen.

6.2.7.4. Wear apron when minimum splashes are likely to occur in the performance of healthcare activities (e.g., cleaners or nursing aide when cleaning/washing used equipments).

6.2.7.5. Wear green gown when the risk of being splashed or otherwise contamination with small amounts of infective material is anticipated (splashed is unlikely to penetrate through the gown).

6.2.8. How to Don a Gown

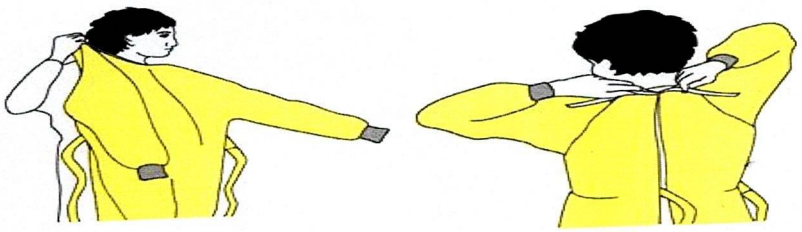
6.2.8.1. Select appropriate type and size

6.2.8.2. Opening is in the back

6.2.8.3. Secure at neck and waist

6.2.8.4. If gown is too small, use two gowns

- Gown #1 ties in front
- Gown #2 ties in back



6.2.9. Removing Gown

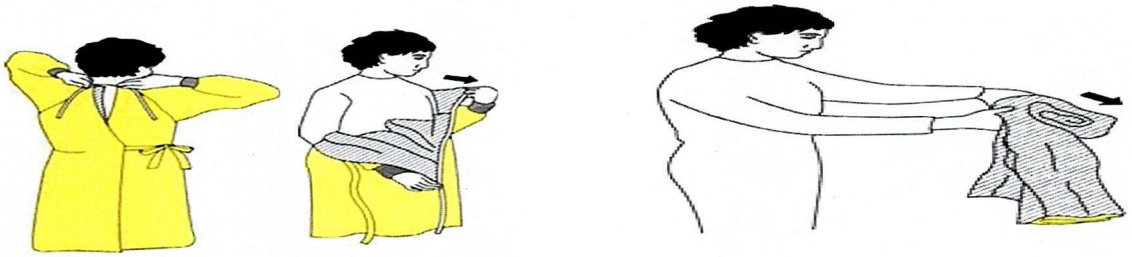
6.2.9.1. Unfasten ties

6.2.9.2.Peel gown away from neck and shoulder

6.2.9.3.Turn contaminated outside toward the inside

6.2.9.4.Fold or roll into a bundle

6.2.9.5.Discard



6.3.Face, Mouth, Eye Protection:

6.3.1. Face Mask:

6.3.1.1.Use when there splash or spray of any respiratory secretions or other body fluids is anticipated.

6.3.1.2.Wear surgical masks when blood, body fluids, secretions, excretions, and splashing procedure is anticipated and when approaching patients on droplet precautions one meter away.

6.3.1.3.Masks should fully cover the nose and mouth and prevent fluid penetration and should fit snuggly over the nose and mouth.

6.3.1.4.**Discard mask once it has been worn, do not hang on the neck or keep on the pocket.**

6.3.1.5.Wear mask during patient care only.

6.3.1.6.Use particulate respirators (e.g. N 95) for Airborne Precautions.

6.3.2. How to Don a Mask

6.3.2.1.Place over nose, mouth and chin

6.3.2.2.Fit flexible nose piece over Nose Bridge

6.3.2.3.Secure on head with ties or elastic

6.3.2.4.Adjust to fit



6.3.3. How to Don a Particulate Respirator

6.3.3.1.Select a fit tested respirator

6.3.3.2.Place over nose, mouth and chin

6.3.3.3.Fit flexible nose piece over Nose Bridge

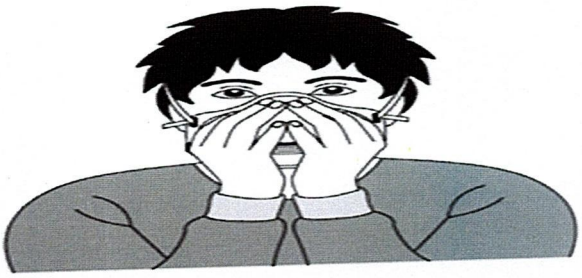
6.3.3.4.Secure on head with elastic

6.3.3.5.Adjust to fit

6.3.3.6.Perform a fit test for checking

6.3.3.6.1. Inhale – respirator should collapse

6.3.3.6.2. Exhale – check for leakage around face



6.3.3.6.3. Use particulate respirators (e.g. N 95, N99 or N100) for Airborne Precautions

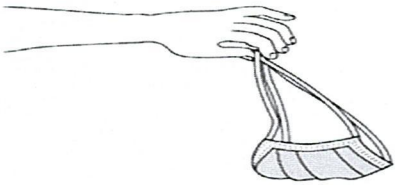
6.3.4. Removing a Mask

6.3.4.1.Untie, Remove from face

6.3.4.2.**Discard**

6.3.4.3.Untie the bottom, then top,





6.3.5. Removing a Particulate Respirator

6.3.5.1. Lift the bottom elastic over your head first

6.3.5.2. Then lift off the top elastic

6.3.5.3. **Discard**



6.3.6. Eye Wear

6.3.6.1. Wear protective eyewear when performing any procedure where there is likelihood of splashing of blood or other body substances into the eyes.

6.3.6.2. Goggles shall fit snugly particularly from the corners of the eye across the brow enough to protect the eyes.

6.3.7. Face Shields

6.3.7.1. Use to provide full face protection against splashes and sprays to the face.

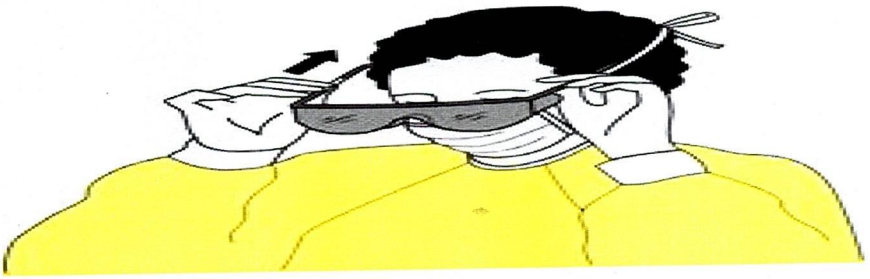
6.3.7.2. Wear face shields as alternative to goggles to provide further protection to other facial area.

6.3.8. How to Don Eye and Face Protection

6.3.8.1. Position goggles over eyes and secure to the head using the ear pieces or headband

6.3.8.2.Position face shield over face and secure on brow with headband

6.3.8.3.Adjust to fit comfortably



6.3.9. Remove Goggles or Face Shield

6.3.9.1.Grasp ear or head pieces with ungloved hands

6.3.9.2.Lift away from face

6.3.9.3.Place in designated receptacle for reprocessing or disposal





6.4. Caps / Footwear

6.4.1. During surgery, wear surgical caps to keep the hair and scalp covered so that flakes of skin are not shed into the wound.

6.4.2. Caps shall be large enough to cover all hair.

6.4.3. Wear footwear (shoe covers or boots) to protect the feet from injury by sharps or heavy items that may accidentally fall on them.

6.4.4. Make sure to keep all footwear clean.

6.4.5. When providing care, wear closed-toed shoes to avoid contamination with blood or other body fluids or potential injury from sharps.

6.4.6. Practice extreme care when donning/removing shoes anytime during care delivery to avoid hand contamination.

6.4.7. Do not wear designated footwear for a certain area, e.g. OR, outside the area.

6.4.8. Wear sandals, "thongs" made of soft material when reason to use is to protect the feet from injury by sharps and heavy items.

6.4.9. Wear boots when gross foot contamination by blood or body fluid is anticipated, (e.g. during orthopedic surgery).

6.5. PPE for Standard Precaution:

6.5.1. Gloves

6.5.2. Gowns

6.5.3. Mask and goggles or a face shield

6.6. PPE for Expanded Precautions:

6.6.1. Contact Precautions – Gown and gloves for contact with patient or environment of care (e.g., medical equipment, environmental surfaces). In some instances, these are required for entering patient's environment.

6.6.2. Droplet Precautions – Surgical masks within 3 feet away from the patient.

6.6.3. Airborne Infection Isolation – Particulate respirator (N-95).

6.7. Compliance with regards to PPE use (can only come through employee education)

6.7.1. Employees must be trained to know at least the following:

6.7.1.1. When/what PPE is necessary.

6.7.1.2. How to properly don, remove, adjust and wear PPE (Refer to Appendix-A, B).

6.7.1.3. The limitations of the PPE.

6.7.1.4. Proper care, maintenance, useful life and disposal of PPE.

6.7.2. Supervisors must ensure that each employee had received and understood the required training through a written certification which includes date of training. The certificate shall be kept at the employee file. (Included in Lecture).

6.8. Incident Reporting:

Report adverse reactions (allergies, sensitivities) relating to the use of PPE to immediate supervisors which will be further be reported to employee health clinic.

7.0. RELATED POLICY / CROSS REFERENCES:

7.1. United States Department of Labor, Occupational Safety and Health Administration (OSHA), ,2007 pp. 8 to 10.

7.2. Ministry of Health Guidelines for Personal Protective Equipments, 3rd edition 2018

7.3. Guidelines for Isolation Precaution Transmission of Infectious Agents in Healthcare Settings, 2018.

7.4. CDC Guidance for the Selection and Use of Personal Protective Equipment (PPE) in Healthcare Settings -2013.

8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR	05 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN	07 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Mr. Khalid B. AlMutairi	09 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		14 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	IC10-1	April 1, 2012
Replaced by	APP-IC-006(2)	April 1, 2014
Deleted	APP-IC-006(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-006(4)	April 1, 2019

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION EXPANDED PRECAUTIONS (ISOLATION PRECAUTIONS)			POLICYNUMBER &VERSION APP-IC-007(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-007(3)	10
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To protect healthcare workers, visitors and patients from transmission of infection from known or suspected infected or colonized patients by contact, droplet, airborne and protective environment routes which cannot be contained by using standard precautions alone.

2.0 DEFINITION (S):

2.1. ***Isolation Precautions*** – These are prudent and uniform approach to the care of all patients that constitutes important strategies for the successful control of hospital Healthcare Associated Infections (HAI).

2.2. ***Expanded Precautions*** – formerly known as transmission based precautions – these are precautions designed for patient's known or suspected to be infected with transmissible of epidemiological important pathogens for which additional precautions beyond standard precautions are needed to interrupt infection transmission.

2.3. ***Airborne Precautions*** – is recommended for patients known or suspected to be infected with infectious agents transmitted person-to-person by the airborne route (e.g. mycobacterium tuberculosis, measles, chicken pox, disseminated herpes zoster).

2.4. ***Droplet Precaution*** – is recommended for patients known or suspected to be infected with pathogens transmitted by respiratory droplets (i.e. large-particle droplets >5μ in size) that are generated by a patient who is coughing, sneezing or talking.

2.5. ***Contact Precautions*** – is recommended for patients with known or suspected infections or evidence of syndromes that represent an increased risk for contact transmission (ex. Multidrug resistant Organism [MDRO], Methicillin Resistant Staphylococcus Aureus [MRSA])

3.0 POLICY STATEMENT(S):

3.1. Expanded Precautions shall be applied for patients documented or suspected to be infected or colonized with highly transmissible or epidemiologically important pathogens for which additional precautions beyond standard precautions are required.

4.0 EQUIPMENT/MATERIAL/FORMS:

4.1. Hand Hygiene Facilities

4.2. Personal Protective Equipment

4.3. Expanded Precaution Boards: Contact, Droplet, Airborne

4.4. Medical waste receptacles

5.0 ROLES AND RESPONSIBILITIES:

5.1. Healthcare Personnel

It is the responsibility of the nurse on duty and any other personnel involve in the management of patient care to implement and adhere to infection prevention and control practices in relation to expanded precautions.

5.2. Infection Control Nurse

Monitor compliance regarding infection prevention and control practices in relation to expanded precautions.

6.0 PROCEDURE:

6.1. Ward nurse notifies infection control:

6.1.1. Nurse on duty fill-up an urgent notification form for infectious diseases and submit to the infection control practitioner in charge of the area.

6.1.2. Nurse initiates isolation precautionary measures either for airborne, droplet or contact precautions in addition to standard precautions. Diseases requiring airborne, droplet and contact precautions.

6.2.Airborne Precautions

6.2.1. Apply airborne precautions to patient's known, or suspected to be infected with infectious agents transmitted via the airborne route.

6.2.2. Place patient in a specialized isolation room, negative pressure room (with ante room) as soon as possible OR in a single room with HEPA filter at the head end of the pt, if no HEPA filter is available then the pt should wear the surgical mak. Negative pressure room is maintained.

6.2.3. Place airborne sign board on door.

6.2.4. Keep Airborne Infection Isolation Room (AIIR) door closed at all times to minimize dispersion of pathogens outside the room via the circulating air.

6.2.5. If there is no specialized isolation room available, placement is subject to decisions of local risk assessment with support of the infection control team.

6.2.6. Patient wears surgical mask whenever possible when having close contact with others.

6.2.7. Instruct patient on the principles of respiratory hygiene/cough etiquette.

6.2.8. Cohorting is not routinely recommended for those with infections spread by the airborne route.

6.2.9. Keep patient on airborne precautions until the cessation of symptoms, clearance of specimens and/or completion of effective treatment according to the specific advice relevant to the infectious agent.

6.2.10. Sitters are prohibited in adult wards having open pulmonary tuberculosis.

6.2.11. Patient Transport

6.2.11.1. Limit patient movement, transfer is not advised unless necessary.

6.2.11.2. Transferring area notifies the receiving area on the airborne precautions requirement for the patient.

6.2.11.3. Instruct the patient on respiratory hygiene/cough etiquette and to wear surgical mask if possible.

6.2.11.4. Healthcare personnel transporting patients on Airborne Precautions do not need to wear mask or respirator during transport if the patient is wearing a mask and infectious skin lesions are covered.

6.2.11.5. For patients with skin lesions associated with varicella or draining skin lesions caused by M. tuberculosis, cover the affected areas to prevent aerosolization or contact with the infectious agent in skin lesions.

6.2.12. Personal Protective Equipment

6.2.12.1. Respirator masks or N95 respirator/face protection are worn by all healthcare workers upon entry to the patient's room and must be removed after leaving the room.

6.2.12.2. It must be readily available at the outside entrance of the patient's room.

6.3.Droplet Precautions

6.3.1. Place patients with known/suspected infections requiring droplet precautions in a single room. Negative pressure room is not indicated.

6.3.2. Place droplet sign board on the door.

6.3.3. If private/single room not available, consider cohorting placing those with same known/suspected infection in the same designated area except for immunocompromised patients.

6.3.4. Keep patient on droplet precautions until the cessation of symptoms, clearance of specimens and/or completion of effective treatment or according to the specific advice relevant to the infectious agents.

6.3.5. Patient Transport

6.3.5.1. Transfer not recommended unless necessary (e.g. medical reasons or for placement in a single room).

6.3.5.2. Instruct the patient on respiratory cough hygiene a\etiquette and advise to wear surgical mask. Change surgical mask when heavily contaminated and when wet with breath moisture or if damaged and torn.

6.3.6. Personal Protective Equipment

6.3.6.1. Wear surgical mask when providing care in close contact.

6.3.6.2. Wear mask before care is provided (i.e. entry into a room or cohort area).

6.4. Contact Precautions

6.4.1. When single-patient rooms are in short supply, apply the following principles for making decisions on patient placement:

6.4.1.1. Prioritize patients with conditions that may facilitate transmission (e.g. uncontained drainage, stool incontinence) for single-patient room placement.

6.4.1.2. Place together in the same room (cohort) patients who are infected or colonize with the same pathogen.

6.4.1.3. If it becomes necessary to place a patient who requires Contact Precautions with a patient who is not infected or colonized with the same infectious agent, avoid placing patients on Contact Precautions in the same room with patients who have conditions that may increase the risk of adverse outcome from infection or that may facilitate transmission (e.g. those who are immunocompromised, have open wounds or have anticipated prolonged length of stay).

6.4.1.4. Ensure that patients are physically separated (i.e. >3 feet apart) from each other. Draw the privacy curtain between beds to minimize opportunities for direct contact).

6.4.1.5.Change protective attire and perform hand hygiene between contacts with patients in the same room, regardless of whether one or both patients are on Contact Precautions.

6.4.1.6.Duration of Precaution:

i. Keep patient on contact precaution until the cessation of symptoms, clearance of specimens and/or completion of effective treatment relevant to the infectious agent.

6.4.1.7.Transport of Patient

i. Avoid unnecessary transfer to other areas unless essential to medical reason.

ii. Instruct transport staff and the receiving area on the contact precautions required for the patient.

iii. Use appropriate barriers for the patient when transport is necessary (e.g. mask, down, wrapping in sheath or use of impervious dressing) to cover the affected area when infectious skin lesions or drainage are present.

iv. When transport for tests and procedures is necessary, transport personnel who need to touch the patient (e.g. bagging a ventilated patient, suctioning a patient with tracheostomy tube) wear gown and gloves to perform patient care an route and use mask is the organism has been found in the sputum.

v. Staff with full barrier precaution should not touch anything in the environment and should be accompanied by another staff who open doors and push elevators button.

6.5.Empiric use of airborne, droplet and contact precautions

6.5.1. Certain clinical conditions beyond the use of standard precautions carry a sufficiently high risk to warrant empiric use of airborne, droplet or contact to enhance precautions while a more definitive diagnosis is pursued.

7.0 RELATED POLICY / CROSS REFERENCES:

7.1. Association for Professionals in Infection Control and Epidemiology, 2017. Isolation Systems: Recommendation for Isolation Precautions in Hospitals, Chapter 29.

7.2. CDC Guidelines for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings 2007.

8.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑA NURSING DIRECTOR	05 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR	07 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		09 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		14 MAR 2019

9.0 POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	IC10-1	April 1, 2012
Replaced by	APP-IC-007(2)	April 1, 2014
Deleted	APP-IC-007(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-007(4)	April 1, 2019

وزارة الصحة
Ministry of Health
الإدارة العامة لمكافحة عدوى المنشآت الصحية
General Directorate for Infection prevention and Control

TRANSPORTATION CARD

CONTACT PRECAUTIONS العزل التلامسي

1 Notify the receiving unit/ward/department (Diagnosis, Type of Isolation Precautions).

2 **Prepare the patient for transportation :**

- Dress wounds with impervious dressings.
- Dress the patient in a clean gown.
- Cover patient with clean sheet.
- HCW should wear clean gloves and perform hand hygiene after taking off .

3 Staff should disinfect the patient's bed / wheeled chair using MOH approved disinfectant.



Use clean gloves

1 إبلاغ القسم المستلم (التشخيص - نوع العزل).

2 **يتم تحضير المريض للنقل كما يلي:**

- تغطية جروح المريض بضماد غير منفذ للسوائل.
- إرتداء المريض لرداء طبي نظيف.
- تغطية المريض بملاءة نظيفة.
- يجب على الممارس الصحي إرتداء القفازات النظيفة ونزعها بعد الإنتهاء من نقل المريض وممارسة تطهير الأيدي.

3 يجب على الممارس الصحي تطهير السرير/ الكرسي المتحرك المستخدم لنقل المريض بعد النقل باستخدام المطهرات المعتمدة بوزارة الصحة.

وزارة الصحة
Ministry of Health
الإدارة العامة لمكافحة عدوى المنشآت الصحية
General Directorate for Infection prevention and Control

TRANSPORTATION CARD

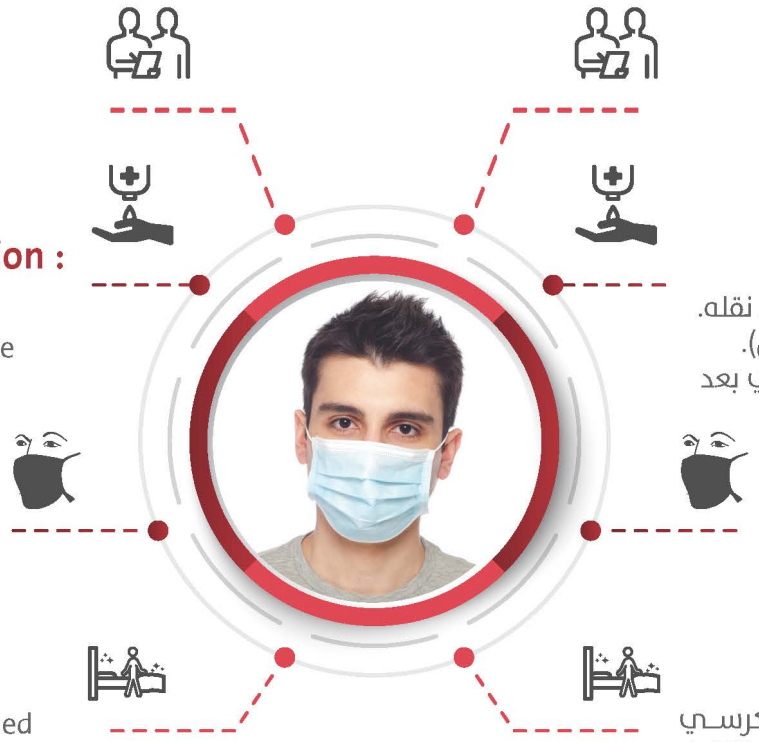
DROPLET PRECAUTIONS العزل الرذاذي

1. Notify the receiving unit/ward/department (Diagnosis, Type of Isolation Precautions).

2. **Prepare the patient for transportation :**
   - Patient should wear a surgical mask.
   - Educate the patient about respiratory hygiene (Cough Etiquette).
   - HCW should perform hand hygiene after patient transport.

3. If the patient can not tolerate wearing a **surgical mask**, HCW should wear a surgical mask during transportation.

4. Staff should disinfect the patient bed/ wheeled chair using MOH approved disinfectant.



Use surgical or medical masks

1. ابلاغ القسم المستلم (التشخيص - نوع العزل).

2. **يجب أن يتم تحضير المريض للنقل كما يلي:**
   - أن يستخدم المريض الكمام الجراحي العادي أثناء نقله.
   - تثقيف المريض عن العناية التنفسية (آداب السعال).
   - يجب على الممارس الصحي ممارسة نظافة الايدي بعد الإنتهاء من نقل المريض.

3. يجب على الممارس الصحي استخدام الكمام الجراحي العادي أثناء عملية النقل فى حاله عدم امكانية إرتداء المريض للكمام الجراحي الطبي العادي.

4. يجب على الممارس الصحي تطهير السرير أو الكرسي المتحرك المستخدم لنقل المريض بعد النقل باستخدام المطهرات المعتمدة في وزارة الصحة.

وزارة الصحة
Ministry of Health
الإدارة العامة لمكافحة عدوى المنشآت الصحية
General Directorate for Infection prevention and Control

TRANSPORTATION CARD

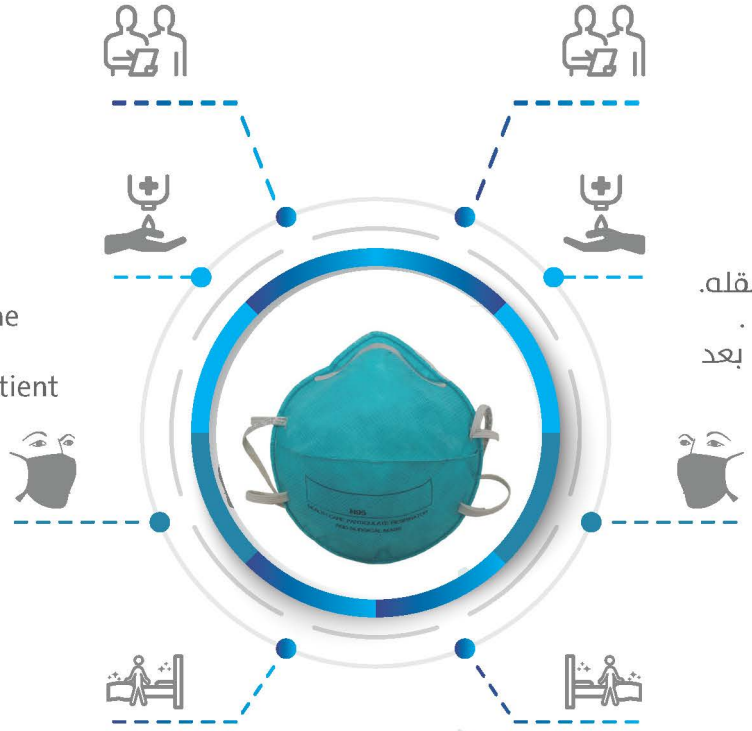
AIRBORNE PRECAUTIONS العزل الهوائي

1. Notify the receiving unit/ward/department (Diagnosis, Type of Isolation Precautions).

2. **Prepare the patient for transportation :**
   - Patient should wear surgical mask.
   - Educate the patient about respiratory hygiene (Cough Etiquette).
   - HCW should perform hand hygiene after patient transport.

3. If the patient can not tolerate wearing a **surgical mask**, during transportation healthcare workers should wear the fitted **N95 respirator**.

4. Staff should disinfect the patient bed/ wheeled chair using MOH approved disinfectant.



Use N95 respirator

1. ابلاغ القسم المستلم (التشخيص - نوع العزل) .

2. **يجب أن يتم تحضير المريض للنقل كما يلي:**
   - أن يستخدم المريض الكمام الجراحي العادي أثناء نقله.
   - تثقيف المريض عن العناية التنفسية (آداب السعال) .
   - يجب على الممارس الصحي ممارسة نظافة الايدي بعد الإنتهاء من نقل المريض .

3. في حاله عدم امكانية إرتداء المريض للكمام الجراحي الطبي العادي يجب على الممارس الصحي استخدام الكمام التنفسي عالي الكفاءة (N95) أثناء عملية النقل .

4. يجب على الممارس الصحي تطهير السرير أو الكرسي المتحرك المستخدم لنقل المريض بعد النقل باستخدام المطهرات المعتمدة في وزارة الصحة.



وزارة الصحة
Ministry of Health
الإدارة العامة لمكافحة عدوى المنشآت الصحية
General Directorate for Infection Control of Health Facilities

إحتياطات العزل التلامسي
CONTACT PRECAUTIONS

يجب على الزوار مراجعة مكتب التمريض قبل الزيارة
VISITORS : Report to nurse's station before entring the room

على جميع الممارسين الصحيين و الزوار اتباع التالي:

All HCWs and visitors must do the following:

قبل دخول الغرفة او منطقة المريض:

1- ممارسة نظافة الايدي.

2- ارتداء مريول العزل و القفازات .

before patient room or care area entry :

1- Practice hand hygiene .

2- Wear isolation gown and gloves.



قبل الخروج من غرفة المريض أو منطقة المريض:

1- يتم خلع مريول العزل والقفازات والتخلص منها في حاوية النفايات الطبية .

2- ممارسة نظافة الايدي.

before exit from patient room or care area :

1- Remove gown and gloves and discard as medical waste.

2- Practice hand hygiene .

احتياطات العزل الرذاذي
DROPLET PRECAUTIONS

يجب على الزوار مراجعة مكتب التمريض قبل الزيارة
VISITORS : Report to nurse's station before entring the room

على جميع الممارسين الصحيين و الزوار اتباع التالي:

All HCWs and visitors must do the following:

قبل دخول الغرفة أو منطقة المريض:

1- ممارسة نظافة الأيدي.

2- ارتداء الكمام الجراحي العادي .

before patient room or care area entry :

1- Practice hand hygiene .

2- Wear a surgical Mask .



قبل الخروج من غرفة المريض أو منطقة المريض:

1- يتم خلع الكمام الجراحي العادي والتخلص منه في حاوية النفايات الطبية .

2- ممارسة نظافة الأيدي.

before exit from patient room or care area :

1- Surgical Mask must be removed and discarded as medical waste.

2- Practice hand hygiene .



احتياطات العزل الهوائي
AIRBORNE PRECAUTIONS

يجب على الزوار مراجعة مكتب التمريض قبل الزيارة
VISITORS : Report to nurse's station before entring the room

على جميع الممارسين الصحيين و الزوار اتباع التالي:

All HCWs and visitors must do the following:

قبل دخول الغرفة :
1- ممارسة نظافة الايدي.
2- ارتداء الكمام التنفسي عالي الكفاءة .

Before patient room entry :
1- Practice hand hygiene .
2- Wear N95 respirator .



قبل الخروج من غرفة المريض :
1- يتم خلع مستلزمات الوقاية الشخصية ماعدا الكمام التنفسي عالي الكفاءة والتخلص منها في حاوية النفايات الطبية .

Before exit from patient room :
1- All personal protective equipment must be removed except N95 respirator and discarded as medical waste.

بعد الخروج من غرفة المريض :
1- يتم خلع الكمام التنفسي عالي الكفاءة والتخلص منه في حاوية النفايات الطبية .
2- ممارسة نظافة الايدي.

After exit from patient room :
1- Remove N95 respirator and discard as medical waste.
2- Practice hand hygiene .

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
SAFE HANDLING AND DISPOSAL OF SHARPS AND MANAGEMENT OF ACCIDENTAL SHARPS INJURY			APP-IC-008(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-008(3)	13
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To provide guidelines for prevention of injury and management of needle stick injuries to all staff members regarding safe handling and disposal of sharps.

1.2. To prevent Healthcare Workers from acquiring blood borne pathogens.

2.0 DEFINITION (S):

2.1. ***Sharps*** – any object that can reasonably be anticipated to penetrate the skin or other parts of the body such as needle devices, scalpels, lancets, etc. Other items that are not sharp, but could be broken are included, such as glass objects and capillary tubes.

2.2. ***Sharp injury*** – any injury caused by a sharp, including but not limited to, needle sticks, cuts or abrasions.

2.3. ***Other Potentially Infectious Materials (OPIM)*** – means human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, anybody fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids.

2.4. ***Percutaneous injury***- a needle sticks injury or cut with a sharp object

3.0 POLICY STATEMENT(S):

3.1. All employees should take precautions to prevent injuries by needles, scalpels and other sharp instruments. Standard Precaution must be observed to prevent the transmission of blood borne pathogens like HIV, Hepatitis B(HBV), Hepatitis C Virus (HCV), and other diseases cause by needle stick injury while administering\health care

3.2. Special care shall be taken to prevent injuries during procedures (when cleaning reusable sharps instruments and during disposal of sharp).

4.0 EQUIPMENT/MATERIAL/FORMS:

4.1. Personal Protective Equipment

4.2. Hand Hygiene Equipment

4.3. Sharp containers

4.4. Antiseptic soap/ Disinfectant solution

4.5. 70% alcohol

4.6. Attachment 1: Needle prick Injury Form

5.0 ROLES AND RESPONSIBILITIES:

5.1. Healthcare facilities shall be responsible to ensure that adequate and accessible resources for the disposal of sharps are available

5.2. Each healthcare worker is responsible for the management and safe disposal of sharps used.

5.3. Employee Health Physician:

5.3.1. It is the responsibility of the employee health physician to take the history from the employee and document the details in medical record.

5.3.2. Lab Technician is responsible for drawing blood samples (as required) to test for HBsAg, Anti- HBs, Anti-HCV, HIV screening) don't take any Blood sample from the ward.

6.0 PROCEDURE:

6.1. Place sharp containers to the point of use to limit the distance between use and disposal.

6.2. Replaced Sharp container when ¾ full to prevent overfilling.

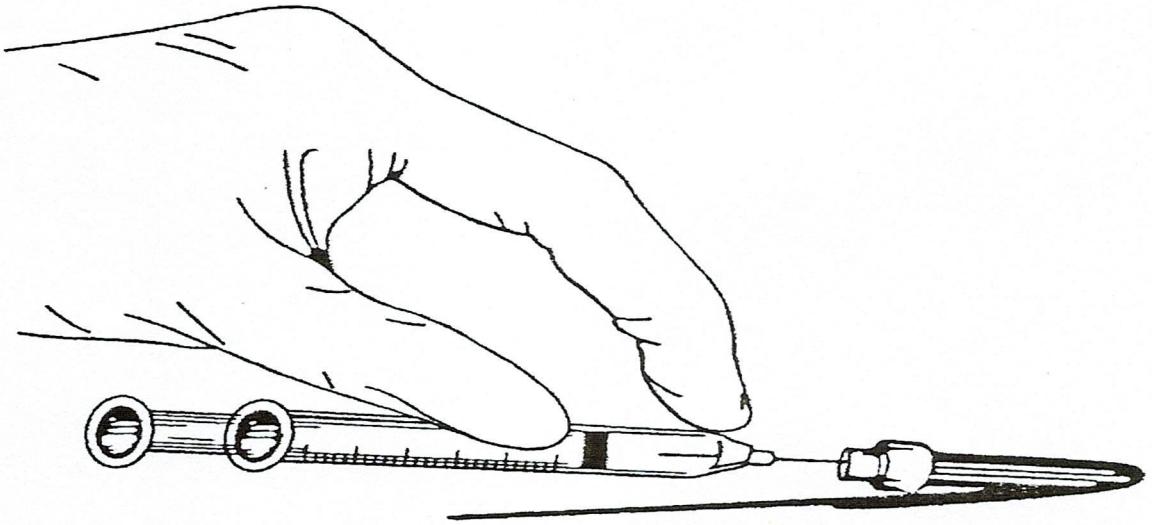
6.3. Never force sharps into sharp container.

6.4. Transport of used sharp containers to the designated hazardous waste collection truck for disposal is done by waste management personnel.

6.5. Medicine carts and phlebotomy trays shall have free standing rigid plastic containers designed for sharp disposal. These are also used in all laboratory areas and in any support area which has sharp for disposal.

6.6. Do not recap needles, purposely bend or break by hand, remove from disposal syringes, or otherwise manipulated by hand. When recapping is required, a single handed technique (scoop method) can be used.

6.7. Place disposable syringes and needles, scalpel, blades and other sharp items in a puncture-resistant container immediately after used.



6.8. Never recap needle by hand. However, recapping of needle is required in certain situations. To recap needle safely, place the needle horizontally, on a flat surface Using one hand, insert the needle into the cap as shown. Then, use your other hand to pick up the cap and tighten it to the needle hub. Where possible, Needles and Syringes should be discarded as a single unit into a designated sharp box. Glass slides, glass drug ampoules, razors, disposable scissors and IV cannula must be discarded into a sharp box. When syringes containing arterial blood are to be sent to the laboratory, needles should be removed and the nozzles of the syringes sealed by means of a lure rubber cap or a blunt hub on the syringe nozzle.

6.9. Sharps must not be passed by hand between a healthcare worker and any person.

6.10. When putting a new sharp container into service, fill up the required information on the "SHARP" label and the sharp container cover should be open until it will be 3/4th full.

6.11. Report all percutaneous injuries and mucocutaneous exposures to Employee Health Clinic during working hours and report to Emergency Room (ER) during weekend and holidays. Initiate Hepatitis B-vaccine when indicated within 24 hours of the exposure incident.

6.12. Issue vaccination card to the employee to remind her/his for the next vaccination schedule.

6.13. Upon completion of all three vaccinations, the employee is given a copy of the completed vaccination card and a record is to be maintained.

6.14. In Case of Accidental Needle Prick:, the healthcare workers shall do the following immediately:

6.14.1. Wash with soap and water and cover with dressing.

6.14.2. Apply isopropyl alcohol 70%.

6.14.3. Check patient's chart (status).

6.14.4. Report the incident (to your immediate superior/Infection Preventionist /head nurse).

6.14.5. Fill up the standard OVR form from the ward and have it signed by the Head Nurse.

6.14.6. Proceed to the employee health clinic with the OVR form. Another Needle stick injury form should be filled up in EHC.

6.14.7. For Human Bite: Follow needle stick injury procedures.

6.14.8. If the source individual is found or known to be Hepatitis C positive, HIV positive Hepatitis B positive, then the exposed individual needs follow-up by the Infection Preventionist. Employee exposed to viral Hepatitis and HIV is counseled for the duration of the follow up. Refrain from donating blood, plasma or tissue. Advised pregnant or lactating mother not to breastfeed her baby (For HIV positive).

6.14.9. All HCW's are to be immunized with Hepatitis B vaccine.

6.14.10. If the victim's HBsAg titer is >10 iu/l, no need to take immune-globulin injection. But if the source is positive, you can take immune-globulin injection.

6.14.11. Safe/protective sexual act on both partners.

6.15. The following criteria for safe sharp container are recommended:

6.15.1. Puncture resistant, waterproof and leak proof.

6.15.2. Durable, closable, stable, of adequate size and shape.

6.15.3. Must have wide opening that is wide enough to allow sharps to be dropped into the container by a single hand operation.

6.15.4. Clearly labeled with "biohazard" symbol printed on the container.

6.15.5. Securely sealed with a lid before disposal

6.16. Ensure that health care workers are properly trained in the safe use and disposal of needles and sharps.

7.0 RELATED POLICY / CROSS REFERENCES:

7.1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 100: Occupational health. In APIC Text of infection control and epidemiology (4th ed.).
7.2. Association for professionals in Infection Control (APIC) and Epidemiology, Inc. (2014) Chapter 101: Occupational Exposure to Bloodborne Pathogens. In APIC Text of infection control and epidemiology (4th ed.).
7.3. Centers for Disease Control and Prevention (CDC). For edition U.S. Public Health Service guidelines for the management of occupational exposures to HBV, HCV and HIV and recommendation for post exposure prophylaxis, MMWR 2001/50 O (RR11);1-42.
7.4. Centers for Disease Control and Prevention (CDC). For edition U.S. Public Health Service guidelines for public health service; guidelines for the management of occupational exposures to HIV; and, recommendation for post exposures prophylaxis. MMWR 2005; 54 (RR-09);1-17.

8.0 APPROVAL:

Attachment 1:

Blood and Body Fluid Exposure Report

Last Name: **First Name:**

Injury ID: *(for office use only)* ---------- **Facility ID**: *(for office use only)* ----------

Completed by: ----------

1) **Date of injury:** ----------
2) **Time of injury):** ----------
3) **Department where injury occurred:** ----------
4) **What is the job category of the injured worker?** ----------
5) **Where did the injury occur?** ----------
6) **Was the source patient identifiable?**

Yes	1 ☐
No	2 ☐
Unknown	3 ☐
Not applicable	4 ☐

7) **Which body fluids were involved in the exposure:**

Blood or Blood Products	☐	Peritoneal Fluid	☐
Vomit	☐	Pleural Fluid	☐
Sputum	☐	Amniotic Fluid	☐
Saliva	☐	Urine	☐
CSF	☐	Other, describe:	☐

8) **Was the body fluid visibly contaminated with blood?**

1 Yes	☐
2 No	☐
3 Unknown	☐

9) **Was the exposed part: (***check all that apply***)?**

intact Skin	☐	Nose (*mucosa*)	☐
Non-Intact Skin	☐	Mouth (*mucosa*)	☐
Eyes (*conjunctiva*)	☐	Other, Describe: _____	☐

10) Did the blood or body fluid: *(check all that apply)*:

- Touch Unprotected Skin ☐
- Touch Skin Between Gap in Protective Garments ☐
- Soak through Barrier Garment or Protective Garment ☐
- Soak through Clothing Soak through Clothing ☐
-

11) Which barrier garments were worn at the time of exposure: *(check all that apply):*

Single Pair Latex/Vinyl Gloves	☐
Double pair Latex/Vinyl Gloves	☐
Goggles	☐
Eyeglasses *(not a protective item)*	☐
Eyeglasses with Side shields	☐
Face shield	☐
Surgical Mask	☐
Surgical Gown	☐
Plastic Apron	☐
Lab Coat, Cloth *(not a protective garment)*	☐
Lab Coat, Other	☐

12) Was the exposure the result of: (*check one box only*):

Direct Patient Contact	☐
Specimen Container Leaked/Spilled	☐
Spécimen Container Broken	☐
IV Tubing/Bag/Pump Leakey /Broken	☐
Other Body Fluid Container Spilled/Leaked	☐
Touched Contaminated Equipment/Surface	☐
Touched Contaminated Drapes/Sheets/Gowns, etc.	☐

Unknown ☐
Other, Describe: _____ ☐
Feeding/Ventilator/other Tube Separated/Leaked/Splashed. ☐

Specify Tubing: _____

13) For how long was the blood or body fluid in contact with your skin or mucous membranes? *(check one)*

Less than 5 Minutes ☐ 5-14 Minutes ☐
15 Minutes to 1 Hour ☐ More than 1 Hour ☐

14) How much blood/body fluid came in contact with your skin or mucous membranes? *(check one)*

Small Amount (up to 5 cc, or up to 1 teaspoon) ☐

Moderate Amount (up to 50 cc, or up to quarter cup) ☐

Large Amount (More than 50 cc) ☐

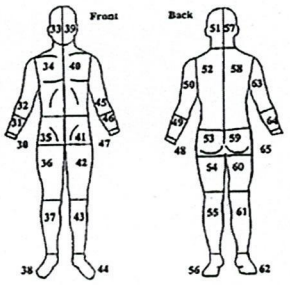
15) Location of the Exposure:

Largest area of exposure:

Middle area of exposure:

Smallest area of exposure:





16) Describe the circumstances leading to this exposure:----------
---

Lab (Hb, HCV, HIV, other)

Healthcare Worker: ----------

Source: ----------

Treatment Prophylaxis (HBIG, Hb vaccine, tetanus, other): ----------

Healthcare Worker: ----------

Source: ----------

Needlestick & Sharp Object Injury Report

Last Name: ---------- First Name: ----------

Injury ID: *(for office use only)* _____ Facility ID: *(for office use only)* _____ Completed by: ____

1) Date of injury:
2) Time of injury:
3) Department where injury occurred:

4) Home Department:

5) What is the job category of the injured worker?

6) Where did the injury occur?

7) Was the source patient identifiable?

Yes ☐

No ☐

Unknown ☐

Not applicable ☐

8) Was the injured worker the original user of the sharp item?

Yes ☐

No ☐

Unknown ☐

Not applicable ☐

9) The item was:

Contaminated *(known exposure to patient/contaminated equipment)* ☐

⟹ **was there blood on the device?** Yes ☐ No ☐

Uncontaminated *(no known exposure to patient/contaminated equipment)* ☐

Unknown ☐

10) For what purpose was the sharp item originally used?

Unknown/Not applicable ☐ Injection, intra-muscular/subcutaneous, or other injection through the skin *(syringe)*

Heparin or saline flush *(syringe)* ☐ Other injection into *(or aspiration from)* IV injection site or IV port *(syringe)*

To connect IV line *(intermittent IV/piggyback/IV Infusion/another IV-line connection)*

To start IV or set up heparin lock *(IV catheter or winged set-type needle)*

To draw venous blood ☐

if used to draw venous blood was it?

Direct stick 1 ☐ Draw from a line 2 ☐ To draw arterial blood sample ☐

if used to draw arterial blood was it?

Direct stick 1 ☐ Draw from a line ☐. To place an arterial /central line ☐

To obtain a body fluid or tissue sample ☐ *(urine/CSF/amniotic fluid/other fluid, biopsy)*

Finger stick/Heel stick ☐ Suturing ☐ Cutting ☐

Drilling ☐ Electrocautery ☐

To contain a specimen or pharmaceutical *(glass item)* ☐

Other; describe _____ ☐

11) Did the injury occur?

12) What type of device caused the injury?

Needle-*Hollow bore* ☐
Surgical ☐
Glass ☐

Which device caused the injury?

12a) Brand/Manufacturer of product:) _____

13) If the item causing the injury was a needle or sharp medical device, was it a" Safety Design" with a shielded, recessed, retractable, or blunted needle or blade?

Yes ☐
No ☐
Unknown ☐

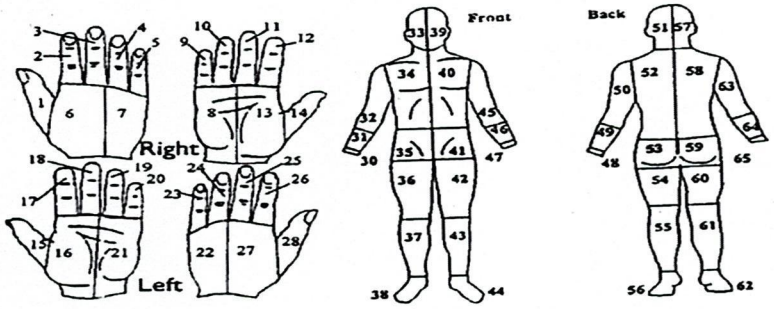
13a) Was the protective mechanism activated?

Yes, fully ☐
Yes, partially ☐
No ☐
Unknown ☐

13b) Did exposure Incident happen?

Before activation ☐
During activation ☐
After activation ☐
Unknown ☐

14) Mark the location of the injury:



15) Was the injury?
Superficial *(little or no bleeding)* ☐
Moderate *(skin punctured, some bleeding)* ☐
Severe *(deep stick/cut, or profuse bleeding)* ☐

16) If injury was to the hand, did the sharp item penetrate?

☐ Double pair of gloves ☐ Single pair of gloves
☐ No gloves

17) Dominant hand of the injured worker:

☐ Right-handed
☐ Left-handed

18) Describe the circumstances leading to this injury:

_____
_____
_____
_____
_____
_____

Lab (Hb, HCV, HIV, other)

Healthcare Worker: ----------

Source: ----------

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR Sc. # 06-RN-6336	05 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director		07 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		10 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		7 MAR 2019

9.0 POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	IC13-1	April 1, 2012
Replaced by	APP-IC-008(2)	April 1, 2014
Deleted	APP-IC-008(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-004(3)	April 1, 2019

وزارة الصحة
Ministry of Health

Ministry of Health
AFIF GENERAL HOSPITAL

وزارة الصحة
Ministry of Health

INFECTION CONTROL DEPARTMENT

INCIDENT REPORT FORM
(Needle Stick Injury)

Name of Staff: _____ Name of Patient: _____

Age: _____ Sex: _____ Age: _____ Sex: _____

Ward: _____ Nationality: _____

HBV Status: _____ HBV Status: _____

Date & Time of Incident: _____

Specify type of incident:

- Disposing of used of needles
- Administering parenteral injection or infusion therapy
- Drawing of blood
- Recapping needles after use
- Handling linens or trash containing uncapped needles
- Cleaning up after patient care procedures in which needles are used
- Others

Explain details of incident:

_____

_____

_____

_____

Action Taken by Infection Control Practitioner

_____

_____

_____

Reported by: Noted by:

_____ _____

Name & Signature of Staff Infection Control Department

وزارة الصحة
Ministry of Health

AFIF GENERAL HOSPITAL

Infection Control Department

NEEDLE STICK INJURY RATE FOR _____

$$\frac{\text{Total number \# of events (injury)}}{\text{Total number \# of full-time employee (FTE)}} \times 100$$

$$\frac{\text{31 needle stick injury}}{\text{437 full-time employee}} \times 100 = 7.09 \text{ injuries per year}$$

Post Exposure Follow-Up

Date of Exposure:

Month day year

Incident Id: | | | | | | |

SOURCE PATIENT

1. WAS THE SOURCE PATIENT IDENTIFIABLE?

☐ Source Known and Tested ☐ Source Known but Not Tested, Reason: _____ ☐ Source Not Known

2. Was the source patient positive for the pathogens below (even tested before this exposure).

Pathogen	Test	Result			Date drawn
Hepatitis B	HbsAg HbeAg Anti Hbs Anti Hbc	1.Positive 1.Positive 1.Positive 1.Positive	2. Negative 2. Negative 2. Negative 2. Negative	3. Not Tested 3. Not Tested 3. Not Tested 3. Not Tested	___/____/_____
Hepatitis C	Anti HCV EIA PCR HCV RNA	1. Positive 1. Positive 1. Positive	2. Negative 2. Negative 2. Negative	3. Not Tested 3. Not Tested 3. Not Tested	____/____/_____
HIV	Anti-HIV #CD4 cell count Antigen Load Other	1. Positive Count_____ RNA copies/ml_____	2. Negative	3. Not Tested 3. Not Tested 3. Not Tested	___/____/_____
Other	_____	_____			____/_____/_____

3. If the source patient was believed to be in the high-risk group for the blood borne pathogen, check all that apply.

☐ Blood product recipient ☐ Elevated enzymes ☐ Sexual ☐ Dialysis ☐ Injection drug user
☐ Hemophilia ☐ Others _____

4. ***if the source patient was HIV positive, had been treated with any of the following before exposure?***

☐ Unknown ☐ 3TC ☐ IDV ☐ AZT ☐ DDC ☐ Other _____

5. Additional source patient comments:

HEALTH CARE WORKER

1. health care worker was seen by:

☐ Employee health clinic ☐ Emergency ☐ Other _____

2. was the HCW was vaccinated against HBV before the exposure?

☐ No ☐ 1 dose ☐ 2 doses ☐ 3 doses ☐ 4 doses ☐ more than 4 doses

If yes, antibody level upon completion, if listed _____ Date tested ____/_____/_____

3. was the HCW pregnant? ☐ Yes ☐ No ☐ Not Applicable

If yes which trimester? ☐ 1st ☐ 2nd ☐ 3rd

4. results of the base line tests.

Pathogen	Test	Result			Date drawn	# of days next test
Hepatitis B	HbsAg	1.Positive	2. Negative	3. Not Tested	__/__/_____	__/__/_____
	HbeAg	1.Positive	2. Negative	3. Not Tested		__/__/_____
	Anti Hbs	1.Positive	2. Negative	3. Not Tested		__/__/_____
	Anti Hbc	1.Positive	2. Negative	3. Not Tested		__/__/_____
Hepatitis C	Anti HCV EIA	1. Positive	2. Negative	3. Not Tested	__/___/_____	__/__/_____
	PCR HCV	1. Positive	2. Negative	3. Not Tested		__/__/_____
	RNA	1. Positive	2. Negative	3. Not Tested		__/__/_____
HIV	Anti-HIV	1. Positive	2. Negative	3. Not Tested	__/__/_____	__/__/_____
	Other	_____				__/__/_____

5. Circle all the post exposure treatment/prophylaxis given to the HCW & FILL IN THE DOSAGES.

Treatment	Dose	Date Given	Duration/Comments
HBIG	1. _____ 2. _____	_ _/__/_____ _ _/_ _/_____	_____ _____
HVB Vaccine	1. _____ 2. _____ 3. _____ Booster. _____	_ _/_ _/_____ _ _/_ _/_____ _ _/_ _/_____ _ _/_ _/_____	_____ _____ _____ _____
HIV Antiretroviral HIV Antiretroviral HIV Antiretroviral Other	_____ _____ _____ _____	_ _/_ _/_____ _ _/_ _/_____ _ _/_ _/_____ _ _/_ _/_____	_____ _____ _____ _____

6. Results of the follow-up tests:

Pathogen	Test	Result			Date drawn	# of days to next test
Hepatitis B	Panel 1					
	HBsAg	1 Positive	2 Negative	3 Not Tested	_ _/- _/_____	_____
	Anti HBs	1 Positive	2 Negative	3 Not Tested		_____
	Anti HBc	1 Positive	2 Negative	3 Not Tested		_____
	Panel2					
	HBsAg	1 Positive	2 Negative	3 Not Tested	_ _/_ _/_____	_____
	Anti HBs	1 Positive	2 Negative	3 Not Tested		_____
	Anti HBc	1 Positive	2 Negative	3 Not Tested		_____
	Panel 3					
	HBsAg	1 Positive	2 Negative	3 Not Tested	_ _/_ _/_____	_____
	Anti HBs	1 Positive	2 Negative	3 Not Tested		_____
	Anti HBc	1 Positive	2 Negative	3 Not Tested		_____
Hepatitis C	Anti HCV (1)	1 Positive	2 Negative	3 Not Tested	_ _/_ _/____	_____
	Anti HCV (2)	1 Positive	2 Negative	3 Not Tested		
HIV	Anti-HIV (1)	1 Positive	2 Negative	3 Not Tested	_ _/_ _/____	_____
	Anti-HIV (2)	1 Positive	2 Negative	3 Not Tested	_ _/_ _/____	_____
	Anti-HIV (3)	1 Positive	2 Negative	3 Not Tested	_ _/_ _/_____	_____
	Anti- HIV (4)	1 Positive	2 Negative	3 Not Tested	_ _/_ _/_____	_____
Other	_____	_____			_ _/_ _/____	_____
	_____	_____			_ _/_ _/____	_____

7. Additional Comments:

_____

_____

8. Follow-up prophylaxis. Serological Results:

Time	Date	HIV	HBsAG	HCV
_____	_ _/_ _/_____	_____	_____	_____
_____	_ _/_ _/_____	_____	_____	_____
_____	_ _/_ _/_____	_____	_____	_____

9. Follow-up of HBV vaccination:

One dose	Date
Base vaccination	_ _/_ _/_____
Injection after 1 month	_ _/_ _/_____
Injection after 2 months	_ _/_ _/_____
Injection after 1 year	_ _ /_ _/_____

9. Follow-up of Anti- HIV prophylaxis:

Compliance? 1 Good 2 Poor/Non 3 Testing Continues

Interruptions? 1 Yes

AZT Stopped from _ _/_ _/_____ To _ _/_ _/_____

3TC Stopped from _ _/_ _/_____ To _ _/_ _/_____

Indinavir Stopped from _ _/_ _/_____ To _ _/_ _/_____

2 No

Reduction of dosage? 1 Yes

AZT reduction from_____ mg to _____ mg

3TC reduction from _____ mg to _____ mg

Indinavir reduction from _____ mg to _____ mg.

2 No

Toxicity or side effects?

1 Yes

Which? _____

How serious? _____

Date Beginning _ _/_ _/_____ Date ending _ _/_ _/_____

2 No

Action Taken as a result of side effects:

AZT Reduction of dosage: _ _/_ _/_____

3TC Reduction of dosage: _ _/_ _/_____

Indinavir Reduction of dosage: _ _/_ _/_____

Last date taken:

AZT Stopped _ _/_ _/_____

3TC Stopped _ _/_ _/_____

Indinavir Stopped _ _/_ _/_____

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL		SECTION:	
TITLE/DESCRIPTION		POLICYNUMBER &VERSION	
ASEPTIC TECHNIQUE		APP-IC-009(4)	
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-009(3)	7
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To provide guidelines on ways of decreasing the transmission of nosocomial diseases caused by microorganism via interrupting the infection process through the application of aseptic techniques.

1.2. To minimize the risk of infection transmission to patients undergoing invasive procedures or wound management.

2.0 DEFINITION (S):

2.1. ***Asepsis*** is defined as the absence of pathogenic producing microorganisms.

2.2. ***Antiseptic agent*** is an antimicrobial substance applied to the skin to reduce number of microbial flora.

2.3. ***Clean Technique (Medical Asepsis):*** Use clean techniques for routine patient care procedures to reduce the number of skin microorganism.

2.4. ***Sterile Techniques (Surgical Asepsis):*** Sterile techniques help to reduce the risk of post procedure infection in clients by decreasing the microorganism that will enter the body during irrefutable procedure. It is designed to reduce the HCW risk of exposure to potentially infectious blood & tissue during the procedure.

3.0 POLICY STATEMENT(S):

3.1. Importance of aseptic practices shall be considered in the care of patients to reduce the number of microorganisms and/or prevent or reduce transmission from one person (or place) to another and maintain objects and areas maximally free from microorganisms.

4.0 EQUIPMENT/MATERIAL/FORMS:

4.1. Personal Protective Equipments (PPE): Gloves –Sterile & Non-sterile / Gown / Apron / Mask Antiseptic soap or alcohol hand rub sterile drapes

5.0 ROLES AND RESPONSIBILITIES:

5.1. All Doctors and Nurses are responsible and accountable for the implementation of this policy.

5.2. Infection Control Staff are responsible to monitor adherence to this policy.

6.0 PROCEDURE:

6.1. **Two Categories of Aseptic Technique**

6.1.1. Clean Technique (Medical Asepsis): For Suggested Techniques by Procedure Refer to Attachment –1

6.1.1.1. Wash hands between patients, before and after procedures and before and after removing gloves.

6.1.1.2. Use soap and water or alcohol gel for routine care activities; apply friction to increase the amount of soil removed.

6.1.1.3. Use barrier techniques to reduce microbial transmission from patient to personnel.

6.1.1.4. Use ''no-touch'' dressing technique to avoid contamination of sterile supplies. (Use sterile gloves or forceps for dressing applications).

6.1.1.5. Wear clean gown/apron to minimize contamination of clothing and clean gloves to avoid direct contact with infectious materials.

6.1.1.6. Provide environmental controls to reduce microbial transmission (clean environment routinely).

6.1.1.7. Use clean equipment and supplies (mops, water, and clean cloths). Use detergent to remove soil.

6.1.1.8. Use germicidal agent for environmental hygiene and to clean up after blood and body substance spills.

6.1.1.9. Clean and disinfect equipment after each procedure.

6.1.1.10. Reprocess equipment between patients (applies to both clean and aseptic techniques).

6.1.1.11. Discard disposable items after each patient use.

6.1.1.12. Change cover of surfaces (e.g. examination table, stretchers, wheelchairs), between patients.

6.1.1.13. Use mechanical cleaning and/or disinfection of non-invasive equipment that may become contaminated with body substance (e.g. electrodes, ear speculums, stethoscopes, blood pressure cuffs, outside surfaces of ventilators and intravenous pumps)

6.1.1.14. Request high level disinfection or sterilization and storage to maintain sterility of items that have contact with mucosal surfaces (e.g. speculums, suction canisters, oxygen humidifiers, none—surgical ear, nose, throat and dental equipment).

6.1.1.15. Plan/organize with Central Sterilization Supply Department, sterilization and storage to maintain sterility of items used for invasive procedures (e.g. surgical instruments, endotracheal devices, indwelling catheters and surgical implants).

6.1.2. **Sterile Techniques (Surgical Asepsis):** It is designed to reduce the HCW risk of Exposure to potentially infectious blood & tissue during the procedure.

6.1.2.1. Use sterile techniques for all invasive procedures.

6.1.2.2. Put on mask/facial protection when required.

6.1.2.3. Wash hands with an approved antiseptic hand soap (2-5 min.) according to manufacturer instruction.

6.1.2.4. Use barriers to decrease transmission of microorganisms from personnel to patient.

6.1.2.5. Put on appropriate sterile apparel as required by risk of procedure to be done.

6.1.2.6. Maintain area of sterile field with use of sterile supplies (gloves-drapes equipment, etc).

6.1.2.7. Provide environmental controls to maximize reduction of microorganisms during procedure.

6.1.2.8. Use special treatment rooms when indicated e.g. O.R, Radiology.

6.1.2.9. Control activity to reduce airborne transmission if procedure is done at the bedside.

6.1.2.10. Keep doors closed during procedures, or use other physical barriers such as screens to divert traffic. Avoid cleaning/maintenance activities in the area during the procedure

6.1.2.11. Clean and disinfect environmental surfaces routinely after each procedure.

6.1.2.12. Clean and reprocess (steam/gas sterilization) equipment between procedures/patients.

7.0 RELATED POLICY / CROSS REFERENCES:

7.1 Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 27: Hand Hygiene. In APIC Text of infection control and epidemiology (4th ed.).
7.2. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 30: Aseptic Technique. In APIC Text of infection control and epidemiology (4th ed.).
7.3. Maki DG and Tambyah PA. Engineering out the Risk of Infection with Urinary Catheters. Emerg Infect Dis [serial on the Internet]. 2001 Mar-Apr [date cited]. http://dx.doi.org/10.3201/eid0702.700341
7.4. Association of Women's Health. Evidence Based Clinical Practice Guideline. Neonatal Skin Care. Obstetrical and Neonatal Nurses, 2013.
7.5. Gould CV, Umscheid CA, Agarwal RK, Kuntz G, Pegues DA, and the Healthcare Infection Control Practices Advisory Committee (HICPAC), Guidelines for Prevention of Catheter associated urinary tract Infection.2009. Downloaded from: https://www.cdc.gov/hicpac/pdf/CAUTIguideline2009final.pdf

8.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR	05 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR	07 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Mr. Khalid Bandar Al Mutairi QM Director	10 MAR 2019
Approved by	Dr. Adil Moteb Bib Omairah	Hospital Director		17 MAR 2019

9.0 POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	IC14-1	April 1, 2012
Replaced by	APP-IC-009(2)	April 1, 2014
Deleted	APP-IC-009(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-004(3)	April 1, 2019

Procedure	Example	Hand hygiene	Gloves	Preparation of patient's skin	Comment
A. Medical Asepsis (Clean Procedures)					
Procedures in which instruments come in contact with intact mucous membranes	1. Bronchoscopy, gastrointestinal endoscopy, tracheal suction	Antibacterial soap and water or alcohol-based hand rub**	Clean	None is required	
	2. Peripheral Intravenous Insertion	Antibacterial soap and water or alcohol hand rub**	Clean	Hospital-approved antiseptics* should be used. Select appropriately for the patient's site.	
	3. Urinary tract catheterization	Antibacterial soap and water or alcohol hand rub**	Sterile	Hospital-approved antiseptics* and rinse with sterile water	DO NOT use alcohol-containing antiseptic
B. Surgical Asepsis (Sterile Procedures)					
I. Procedures in which instruments go through sterile tissue or fluid	1. CVL insertion - CVL wire insertion - Cardiac pacemaker insertion	Surgical hand scrub with antibacterial soap and water or Alcohol surgical hand scrub**	Sterile	Hospital-approved antiseptics* should be used.	"Defatting" agents do not appear to decrease infections and can cause skin irritation
	2. Arterial line insertion	Surgical hand scrub with antibacterial soap and water or Alcohol surgical hand scrub**	Sterile	Hospital-approved antiseptics* should be used.	Most epidemics of infection associated with arterial pressure monitoring devices appear to be caused by hospital-associated contamination of components external to the skin, such as transducer heads or domes; "endemic" IV-related blood-stream infections are frequently associated with skin flora.

*Antiseptics available are:
1. 2% aqueous chlorhexidine gluconate swabs (for CVC insertion in neonates <2 wk and <1500 grams- avoid excessive skin exposure, remove excess CHG with sterile gauze & observe for skin reactions)
2. 2% chlorhexidine in 70% alcohol swabs
3. 10% povidone iodine (swabs or liquid)
4. 70% alcohol (swabs or liquid)

**Hand preparations available are:
1. Antibacterial soap
2. 62%-70% alcohol-based hand rub
3. 2% chlorhexidine in 70% alcohol surgical hand scrub (according to the manufacturer's recommendations)

Con't...Table 1: Recommendations for HCWs regarding hand and skin preparation of patient skin (site) ONLY.

Procedure	Example	Hand hygiene	Gloves	Preparation of patient's skin	Comment
	3. Spinal tap Thoracentesis Abdominal paracentesis Bone marrow biopsy	Antibacterial soap and water or alcohol surgical hand rub**	Sterile	Hospital-approved anti-septics* should be used	
	4. Cystoscopy	Antibacterial soap and water or alcohol surgical hand rub**		Hospital-approved antiseptics* and rinse with sterile water	DO NOT use alcohol-containing antiseptic
	5. Chest tube insertion Colposcopy Laparoscopy Peritoneal catheter insertion	Surgical hand scrub with antibacterial soap and water or Alcohol surgical hand scrub**	Sterile	Hospital-approved antiseptics* should be used If hair removal is considered necessary, clippers should be used immediately before the procedure	
II. Minor skin surgery	2. Skin biopsy, suturing of small cuts, lancing boils and mole removal 3. Circumcision	Surgical hand scrub with antibacterial soap and water or Alcohol surgical hand scrub**	Sterile	Hospital-approved antiseptics* should be used	
III. Other procedures (major and minor surgery) that enter tissue below the skin	1. Hysterectomy 2. Cholecystectomy 3. Herniorrhaphy	Surgical hand scrub with antibacterial soap and water or Alcohol surgical hand scrub**	Sterile	Antiseptic* should be used after the site has been scrubbed with detergent If hair removal is considered necessary, clippers should be used immediately before the procedure	Hand disinfection before surgical procedures that enter deep tissue is usually prolonged to ensure that all areas that harbor bacteria are adequately cleaned.

*Antiseptics available are:
1. 2% aqueous chlorhexidine gluconate swabs (for CVC insertion in neonates <2 wk and <1500 grams- avoid excessive skin exposure, remove excess CHG with sterile gauze & observe for skin reactions)
2. 2% chlorhexidine in 70% alcohol swabs
3. 10% povidone iodine (swabs or liquid)
4. 70% alcohol (swabs or liquid)
**Hand preparations available are:
1. Antibacterial soap
2. 62%-70% alcohol-based hand rub
3 2% chlorhexidine in 70% alcohol surgical hand scrub (according to the manufacturer's recommendations)

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
POST EXPOSURE MANAGEMENT FOR HEALTH CARE WORKERS			APP-IC-010(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-010(3)	11
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To identify work related infection risks and institute appropriate preventive measures by preventing infectious that may result from healthcare worker occupational exposure.

1.2. To outline a guideline in monitoring the healthcare status of the healthcare worker who have been exposed to work related illness.

2.0 DEFINITION (S):

2.1. ***Post Exposure Prophylaxis (PEP)*** – is any prophylactic treatment started immediately after exposure to a pathogen (such as a disease-causing virus), in order to prevent infection and the development of disease.

3.0 POLICY STATEMENT(S):

3.1. Post exposure prophylaxis shall be initiated for all healthcare workers who sustained occupational exposure.

3.2. Initiation of post exposure prophylaxis shall be based on multiple factors including the type of exposure, healthcare worker exposed and medical status.

4.0 EQUIPMENT/MATERIAL/FORMS:

4.1. Hand hygiene materials

4.2. Personal Protective Equipment

4.3. Vaccination materials

4.4. Sharp container

4.5. Record book

5.0 ROLES AND RESPONSIBILITIES:

5.1. The employee health clinic physician and nurse are responsible for all screening and vaccination activities of all healthcare workers.

5.2. It is the healthcare worker's obligation to be aware of their own infectious disease and vaccination status to minimize the risk of disease transmission to patients and other staff.

6.0 PROCEDURE:

6.1. **Management of Exposure to HIV**

6.1.1. Obtain base line blood sample for HIV testing, CBC, LFTs &RFTs from the health care worker as soon as possible after exposure, and at regular intervals to document a possible seroconversion.

6.1.2. If PEP is offered and taken and the source is later determined to be HIV-negative, discontinue PEP.

6.1.3. Reevaluate exposed health workers within 72 hours post exposure especially if additional information about the exposure or source person becomes available.

6.1.4. PEP is initiated as soon as possible, preferably within hours rather than days of post exposure. Administer for 4 weeks, if tolerated.

6.1.5. Use HIV-antibody testing by enzyme immunoassay to monitor HCP for seroconversion of >6months after occupational HIV exposure. After baseline testing at the time of exposure, follow up testing could be performed at 6 weeks, 12 weeks and 6 months after exposure.

6.1.6. Extended HIV follow-up (e.g. for 12 months) is recommended for healthcare workers who becomes infected with HCV after exposure to a source co-infected with HIV and HCV.

6.1.7. Advice healthcare workers who choose to take PEP on the importance of completing the prescribed regimen.

6.1.8. If you take antiviral drugs for post exposure treatment, you shall be checked for drug toxicity by having a complete blood count, kidney and liver function test just before starting treatment and 2 weeks after starting treatment.

6.1.9. You must report any sudden or severe flu-like illness that occurs during the follow up period, especially if it involves fever, rash, muscle aches, tiredness, malaise, or swollen glands. Any of these may suggest HIV infection, drug reaction, or other medical conditions.

6.1.10. The first 6 to 12 weeks during the follow up period is the time when most infected person show signs and symptoms. Recommendations therefore include:

6.1.10.1. Not donating blood, semen, or organs and not having sexual intercourse.

6.1.10.2. If you choose to have sexual intercourse, use condom consistently and correctly to reduce risk of HIV transmission.

6.1.10.3. Breast feeding not allowed during the follow up period to prevent the possibility of exposing their infants to HIV that may be present in breast milk.

6.2. **Management of Exposure to Hepatitis B**

6.2.1. If the exposed individual is not vaccinated, Hepatitis B vaccination is recommended for any exposure regardless of the source person's HBV status.

6.2.2. When Hepatitis B immune globulin (HBIG) is indicated administer as soon as possible after exposure (preferably within 24 hours).

6.2.3. When Hepatitis B vaccine is indicated, administer as soon as possible (preferably within 24 hours) and can be administered simultaneously with HBIG at a separate site (always administer the vaccine at the deltoid muscle).

6.2.4. Exposed persons who are in the process of vaccination but have not completed the series, complete vaccination as scheduled and include HBIG giving as indicated.

6.2.5. Persons exposed to HBsAg-positive blood or body fluids that are known not to respond to primary vaccine series should receive a single dose of HBIG and reinitiate the hepatitis B vaccine series as soon as possible after exposure.

6.2.6. Alternatively, they must receive two doses of HBIG, one dose as soon as possible after exposure, and the second dose 1 month later. The option of administering one dose of HBIG and reinitiating the vaccine series is preferred for non-responders who did not complete a second 3-dose vaccine series.

6.2.7. For persons who previously completed a second vaccine series but I failed to respond, two doses of HBIG are preferred.

6.3. **Management of Exposure to Hepatitis C**

6.3.1. Testing for anti-HCV by immunoassay and ALT activity is recommended 3 and 6 months after the exposure to detect infection.

6.3.2. There is no post-exposure prophylaxis for HCV, the intent of recommendations for post exposure management is to achieve early identification of chronic disease and if present, referral for evaluation of treatment options. (In addition, no guidelines exist for administration of therapy during the acute phase of HCV infection).

6.3.3. Refer the exposed person to a specialist for medical management when HCV infection is identified early.

6.4. **Management of Exposure to Varicella**

Exposure criteria

• ***Varicella***

A household contacts, face-to-face contact for more than 5 minutes with an infected person without wearing a surgical mask, or direct contact with vesicle fluid without wearing gloves

• ***Shingles***

Direct contact with vesicle fluid without wearing gloves.

6.4.1. If an employee has a known exposure to varicella, she/he must be reported to the Employee Health Clinic as soon as possible.

6.4.2. The exposed healthcare worker shall report to the employee health clinic, the type and degree of exposure and immune status by verbal history shall be evaluated. If immunity status is not known, serologic testing will be done to determine zero status.

6.4.3. Healthcare worker with previous varicella vaccination shall be examined daily at the staff health clinic during 10 – 21 days after exposure. No removal from duty is required unless varicella occurs.

6.4.4. The susceptible employee may be taken off of work or away from patient care during the incubation period (from 10th day after the first exposure until the 21st day following the last day when exposure occurred).

6.4.5. If the healthcare worker develops varicella from either a work or non-work exposure, he/she shall be removed from work and treatment must be started

within 72 hours from onset of clinical infection. The healthcare worker may return to work when all skin lesions are crusted.

6.4.6. Any exposure will be evaluated by the infection control practitioner and appropriate protocols must follow.

6.4.7. The employee health clinic shall maintain a line list of all susceptible (non-immune) as well as immune health care workers. In the event of an index case of chicken pox or shingles, the list can be reviewed to determine the appropriate control measures that shall be undertaken.

6.4.8. The routine pose-exposure use of VZV immune globulin (VZIG) is not recommended among immune competent health care personnel.

6.4.9. The use of VZIG may be considered for immunocompromised (e.g. HIV infected) or pregnant health care personnel.

6.5. **Management of Exposure to Tuberculosis:**

EXPLANATION:

6.5.1. **Incubation period**

From 2 to 10 weeks after exposure to detection of positive Tuberculin skin test (TST) or Interferon-gamma release assay (IGRA); the risk of developing active disease is greatest in the first 2 years after exposure.

6.5.2. **Exposure criteria**

Spending time in a room with a person who has active disease without wearing an N95 respirator; packing or irrigating wounds infected with Mycobacterium Tuberculosis (MTB) without wearing an N95 respirator.

6.5.3 **Period of communicability**

Persons whose smears are AFB positive are 20 times more likely to cause secondary infections than persons who are smear negative. Children with primary pulmonary MTB are rarely contagious.

6.5.4. **Employee health**

Obtain baseline TST results by doing 2 step TST if these have not been performed recently and if the HCW was previously negative; perform post-exposure TST test at 8 to 10 weeks; if the TST test result comes out positive prescribe MTB prophylaxis. Positive IGRA result is also an indication for MTB prophylaxis.

6.5.5. ***Work restrictions***

• Persons whose TST results and IGRA test results are positive
• Infected

Restrict HCWs with active MTB from duty until after they have taken 2 to 3 weeks of effective anti-tuberculosis chemotherapy and they have had 3 AFB-negative sputum samples taken over 8 to 24 hours (one must be an early morning specimen).

6.5.6. ***Prophylaxis***

Prescribe Isoniazid 300 mg daily for 9 months (or 12 months for HIV-infected persons) and pyridoxine 20-40 mg daily. Consult with Infectious disease consultant for verification of the most appropriate prophylaxis regimen.

6.6. Management of Exposure to Meningococcal Disease

EXPLANATION:

6.61. ***Incubation period***

Usually <4 days; range, 1-10 days.

6.6.2. ***Exposure criteria***

Extensive contact with respiratory secretions from an infected person without wearing a mask, particularly when suctioning, resuscitating, or intubating.

6.6.3. ***Period of communicability***

Persons are infectious until they have taken 24 hours of effective antibiotic therapy.

6.6.4. ***Employee health***

Prescribe prophylaxis; educate exposed HCWs about the signs and symptoms of meningitis.

6.6.5. ***Work restrictions***

• *Exposed*

None

• *Infected*

HCW should be restricted from work until they have taken 24 hours of effective antibiotic therapy.

6.6.6. ***Prophylaxis***

Rifampin 600 mg every 12 hours for 2 days (contraindicated in pregnancy) or Ciprofloxacin 500 single dose (contraindicated in pregnancy) or Ceftriaxone 250 mg IM single dose

6.7. Management of Exposure to Measles:

EXPLANATION:

6.7.1. ***Incubation period***

Usually 8-12 days; range, 7-21 days.

6.7.2. ***Exposure criteria***

Spending time in a room with an infected person without wearing a respirator. If air is recirculated, spending time in the area supplied by the air-handling system while an infected person was present or within 1 hour after the person's departure. Contact with nasal or oral secretions from an infected person or items contaminated with these secretions without wearing gloves.

6.7.3. ***Period of communicability***

From 4 days before the rash appears to 4 days after the rash appears, but transmission is minimal by 2 to 4 days after the rash appears.

6.7.4. ***Employee health***

Assess immunity; an HCW is suscepitble unless he or she was born before 1957, provides serological evidence of immunity, or has two documented doses of measles vaccine. Obtain blood for IgG antibody titers as needed. For staff who have not received two doses of measles vaccine, consider initiating or completing the vaccine series.

6.7.5. ***Work restrictions***

• *Exposed*

From days 1-4 no restrictions required. From days 5 to 21 for a single exposure or day 5 of the first exposure through day 21 of the last exposure the HCW either must not work or must have no direct patient contact or must only work with immune

persons away from patient care areas.

• *Infected*

HCW may return to work 4 days after developing a rash.

6.7.6. ***Prophylaxis***

Consider giving susceptible HCWs the vaccine within 3 days or IG within 6 days of exposure to modify severity of infection; vaccine or IG given after exposure does not change work restrictions.

6.8. Management of Exposure to Pertussis:

EXPLANATION:

6.8.1. ***Incubation period***

Usually 7-10 days; range, 5-21 days.

6.8.2. ***Exposure criteria***

• Face-to-face contact without wearing a mask for more than 10 min.

• Spending 1 hour in a room with a confirmed case without wearing a mask.

6.8.3. ***Period of communicability***

Patients are most contagious during the catarrhal stage; communicability diminishes rapidly after the onset of coughing but can persist for as long as 3 weeks.

6.8.4. ***Employee health***

If the HCW has no symptoms, he/she should begin prophylaxis and return to work. If the HCW is symptomatic, he/she should begin therapy and exclude from work until test results are available.

6.8.5. ***Work restrictions***

• *Exposed:*

• Post-exposure (asymptomatic): No restrictions, prophylaxis recommended.

• Post-exposure (symptomatic): Exclude from duty until 5 days after initiating effective therapy or until the disease is excluded by negative serology and negative nasopharyngeal culture.

• *Active:*

Exclude from duty from the beginning of the catarrhal stage through the 3rd week after the onset of paroxysm or until 5 days after the start of effective antimicrobial therapy.

6.8.6. ***Prophylaxis***

The recommended drug is erythromycin (40 mg/kg/day in 4 divided doses, maximum of 2 gm/day) for 14 days (estolate preparation is preferred). Azithromycin or clarithromycin may be tolerated better than erythromycin. If the HCW is allergic to the macrolide group, Cotrimoxazole DS (1 tablet twice daily for 14 days) can be administered.

6.9. MANAGING RUBELLA EXPOSURE:

9.9.1. ***Incubation period***

Usually 16-18 days; range, 14-21 days.

6.9.2. ***Exposure criteria***

Contact within 3 feet of an infected person without wearing a mask; contact with nasopharyngeal secretions from an infected person or items contaminated with these

secretions without wearing gloves; contact with nasopharyngeal secretions or urine from an infant with congenital rubella without wearing gloves.

6.9.3. ***Period of communicability***

Form 7 days before the rash to 7 days after the rash appears; up to 1 year for infants with congenital rubella.

6.9.4. ***Employee health***

Assess immunity; an HCW is susceptible unless he or she was born before 1957, provides serological evidence of immunity, or has one documented dose of rubella vaccine. Obtain blood for IgG antibody titers as needed. For staff who has not received two doses of rubella vaccine, consider initiating or completing the vaccine series.

6.9.5. ***Work Restrictions***

• *Exposed*

Form days 1-6 no restrictions required. From 7th day after the 1st exposure through the last exposure on the 23rd day, the HCW either must not work or must have no direct patient contact or must only work with immune persons away from patient care areas.

• *Infected*

HCW may return to work 7 days after developing rash.

6.9.6. ***Prophylaxis***

None rubella vaccine does not prevent infection after exposure. IG does not prevent infection.

6.10. **MANAGING MUMPS EXPOSURE:**

6.10.1. ***Incubation period***

Usually 16-18 days; range, 12-25 days.

6.10.2. ***Exposure criteria***

Being within 3 feet of an infected person without wearing a mask; contact with saliva or items contaminated with saliva from an infected person without wearing gloves.

6.10.3. ***Period of communicability***

Patients are most communicable 48 hours before the onset of illness, and continue until 5 days after the onset of parotitis.

6.10.4. ***Employee health***

Assess immunity; an HCW is susceptible unless he or she was born before 1957, provides serologic evidence of immunity, or has one documented dose of mumps vaccine. Obtain blood for IgG antibody titers as needed. For staff who has not received two doses of mumps vaccine, consider initiating or completing the vaccine series.

6.10.5. Work restrictions

• *Exposed*

Form days 1-11, no restrictions required. Restrict from work day 12th after first exposure through day 25th of last exposure or 5 days after onset of parotitis. The HCW either must not work or must have no direct patient contact, or work only with immune persons away from patient care areas.

• *Infected*

HCW may return to work 5 days after the onset of parotid gland swelling.

6.10.6. ***Prophylaxis***

None; the mumps vaccine is not proven to prevent infection after exposure; mumps IG does not prevent infection.

7. RELATED POLICY / CROSS REFERENCES:

7.1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 100: Occupational health. In APIC Text of infection control and epidemiology (4th ed.)
7.2. HICPAC/CDC Guidelines for isolation precautions: preventing transmission of infectious agents in healthcare setting, 2007
7.3. Herwaldt LA, et al. Exposure workups. Infection Control Hosp Epidemiol 1997; 18:850-71.
7.4. Red Book. (2012). Committee on Infectious Disease. The American Academy of Pediatrics.

8. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR Sc. # 06-RN-8186	05 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR	07 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		10 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		17 MAR 2019

9. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	IC10-1	April 1, 2012
Replaced by	APP-IC-010(2)	April 1, 2014
Deleted	APP-IC-010(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-010(4)	April 1, 2019

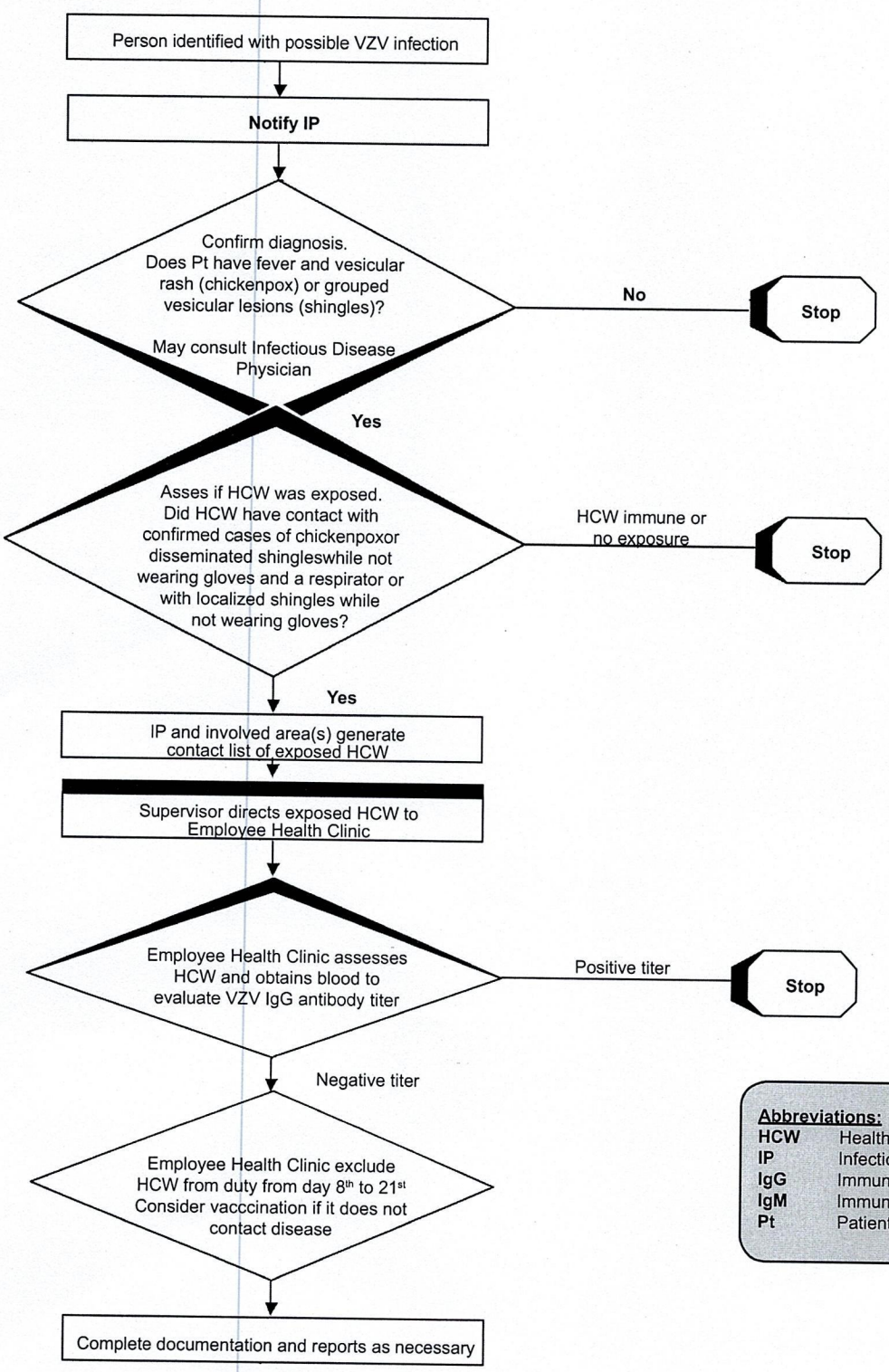
Human Immunodeficiency Virus (HIV) Post-exposure Prophylaxis (PEP) Regimens.

Preferred HIV PEP Regimen	
Raltegravir (Isentress®; RAL) 400 mg PO twice daily Plus Truvada™, 1 PO once daily (Tenofovir DF [Viread®; TDF] 300 mg + emtricitabine [Emtriva™; FTC] 200 mg)	
Alternative Regimens *(May combine 1 drug or drug pair from the left column with 1 pair of nucleoside/nucleotide reverse-transcriptase inhibitors from the right column; prescribers unfamiliar with these agents/regimens should consult physicians familiar with the agents and their toxicities)*	
Raltegravir (Isentress®; RAL)	Tenofovir DF (Viread®; TDF) + emtricitabine (Emtriva™; FTC); available as Truvada™
Darunavir (Prezista®; DRV) + ritonavir (Norvir®; RTV)	Tenofovir DF (Viread®; TDF) + lamivudine (Epivir®; 3TC)
Etravirine (Intelence®; ETR)	Zidovudine (Retrovir™; ZDV; AZT) + lamivudine (Epivir®; 3TC); available as Combivir®
Rilpivirine (Edurant®; RPV)	Zidovudine (Retrovir®; ZDV; AZT) + emtricitabine (Emtriva™; FTC)
Atazanavir (Reyataz®; ATV) + ritonavir (Norvir®; RTV)	
Lopinavir/ritonavir (Kaletra®; LPV/RTV)	
The following alternative is a complete fixed-dose combination regimen, and no additional antiretrovirals are needed: Stribild™ (elvitegravir, cobicistat, tenofovir DF, emtricitabine)	
Alternative Antiretroviral Agents for Use as PEP only with Expert Consultation[b] Abacavir (Ziagen®; ABC) Efavirenz (Sustiva®; EFV) Enfuvirtide (Fuzeon™; T20) Fosamprenavir (Lexiva®; FOSAPV) Maraviroc (Selzentry®; MVC) Saquinavir (Invirase®; SQV) Stavudine (Zerit®; d4T)	
Antiretroviral Agents Generally Not Recommended for Use as PEP Didanosine (Videx EC®; ddI) Nelfinavir (Viracept®; NFV) Tipranavir (Aptivus®; TPV)	
Antiretroviral Agents Contraindicated as PEP Nevirapine (Viramune®; NVP)	

Recommended Post-Exposure Prophylaxis (PEP) for Hepatitis B Virus

Employee Status	Source Patient Status		
	HBsAg Positive	HBsAg Negative	Unknown
Unvaccinated	HBIG*x1 and initiate HB vaccine series.	Initiate HB vaccine series.	Initiate HB vaccine series
Previously vaccinated a. Known responder [+]	No treatment	No treatment	No treatment
b. Known non-responder [++]	HBIG*x2 or HBIG*x1 and initiate revaccination.	No treatment	If known high-risk source, treat as if source were HBsAg positive.
Antibody response unknown	Test exposed person for anti-HBs: 1. if adequate[+], no treatment 2. if inadequate[++], HBIGx1 and vaccine booster.	Test exposed person for anti-HBs: 1. if adequate[+], no treatment 2. if inadequate[++], initiate vaccination	Test exposed person for anti-HBs: 1. if adequate[+], no treatment 2. if inadequate[++], initiate vaccination

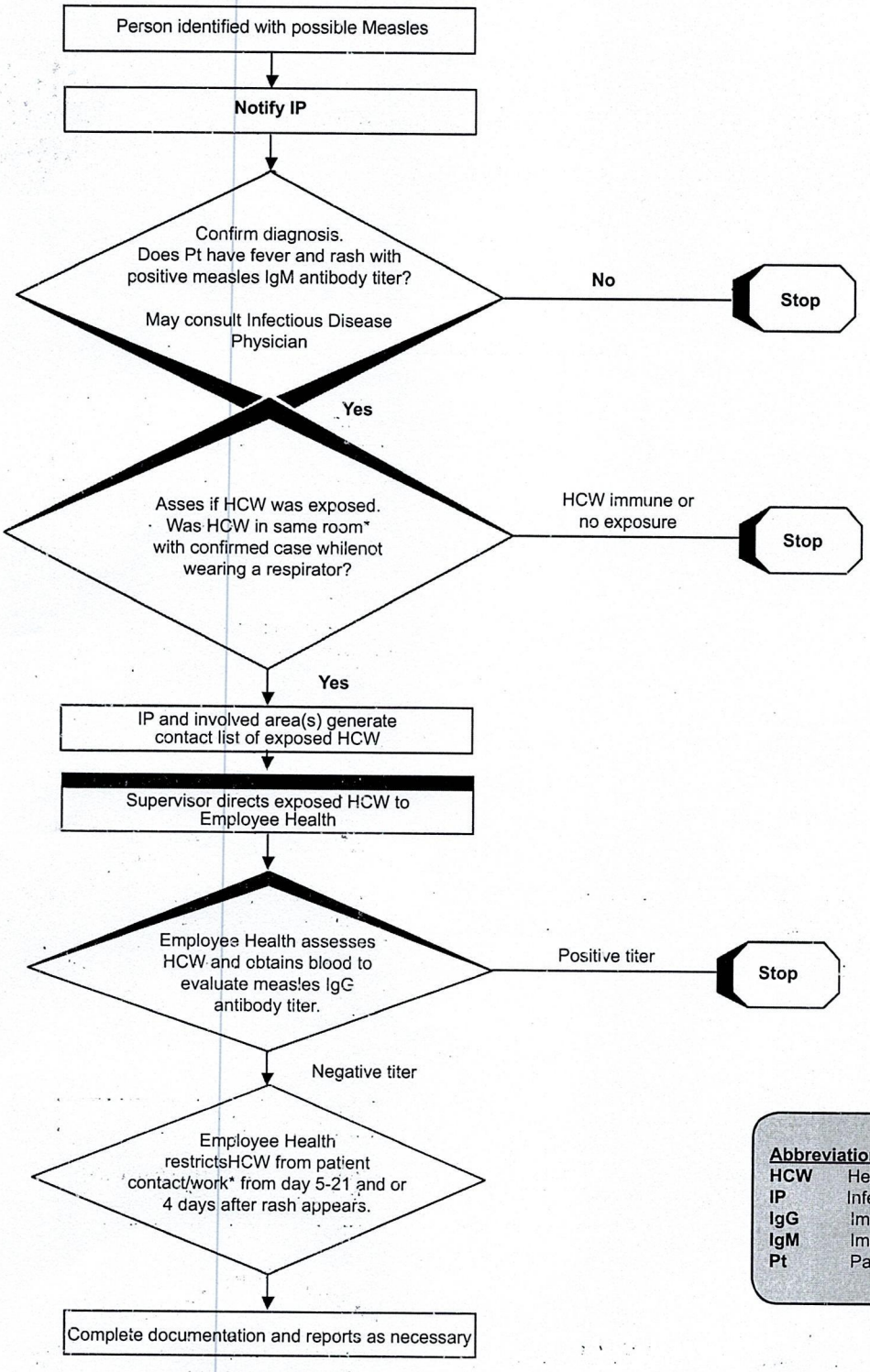
Varicella or Shingles Exposure



Abbreviations:

HCW	Healthcare Workers
IP	Infection Preventionist
IgG	Immunoglobulin G
IgM	Immunoglobulin M
Pt	Patient

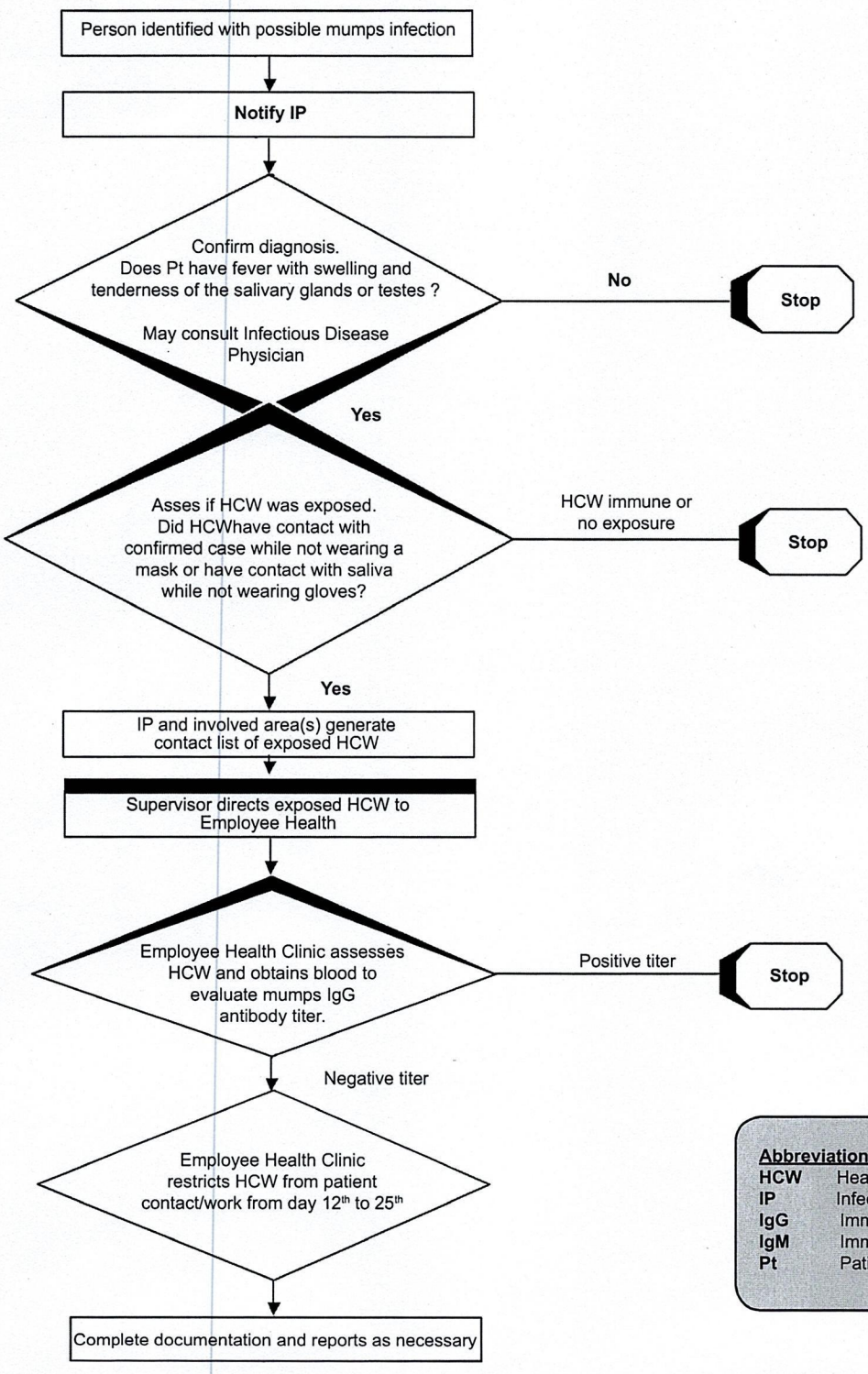
Measles Exposure



Abbreviations:

HCW	Healthcare Workers
IP	Infection Preventionist
IgG	Immunoglobulin G
IgM	Immunoglobulin M
Pt	Patient

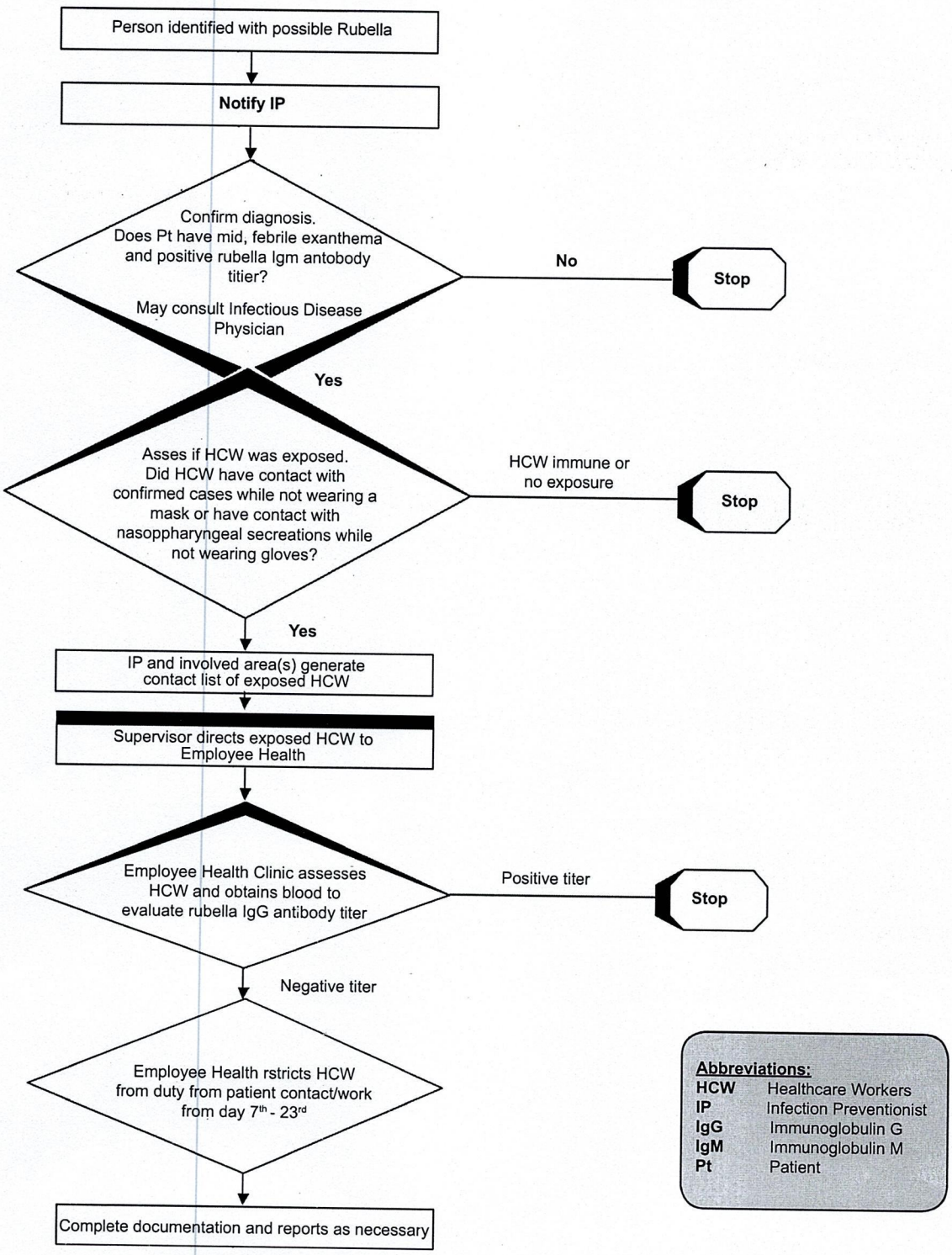
Mumps Exposure



Abbreviations:

HCW	Healthcare Workers
IP	Infection Preventionist
IgG	Immunoglobulin G
IgM	Immunoglobulin M
Pt	Patient

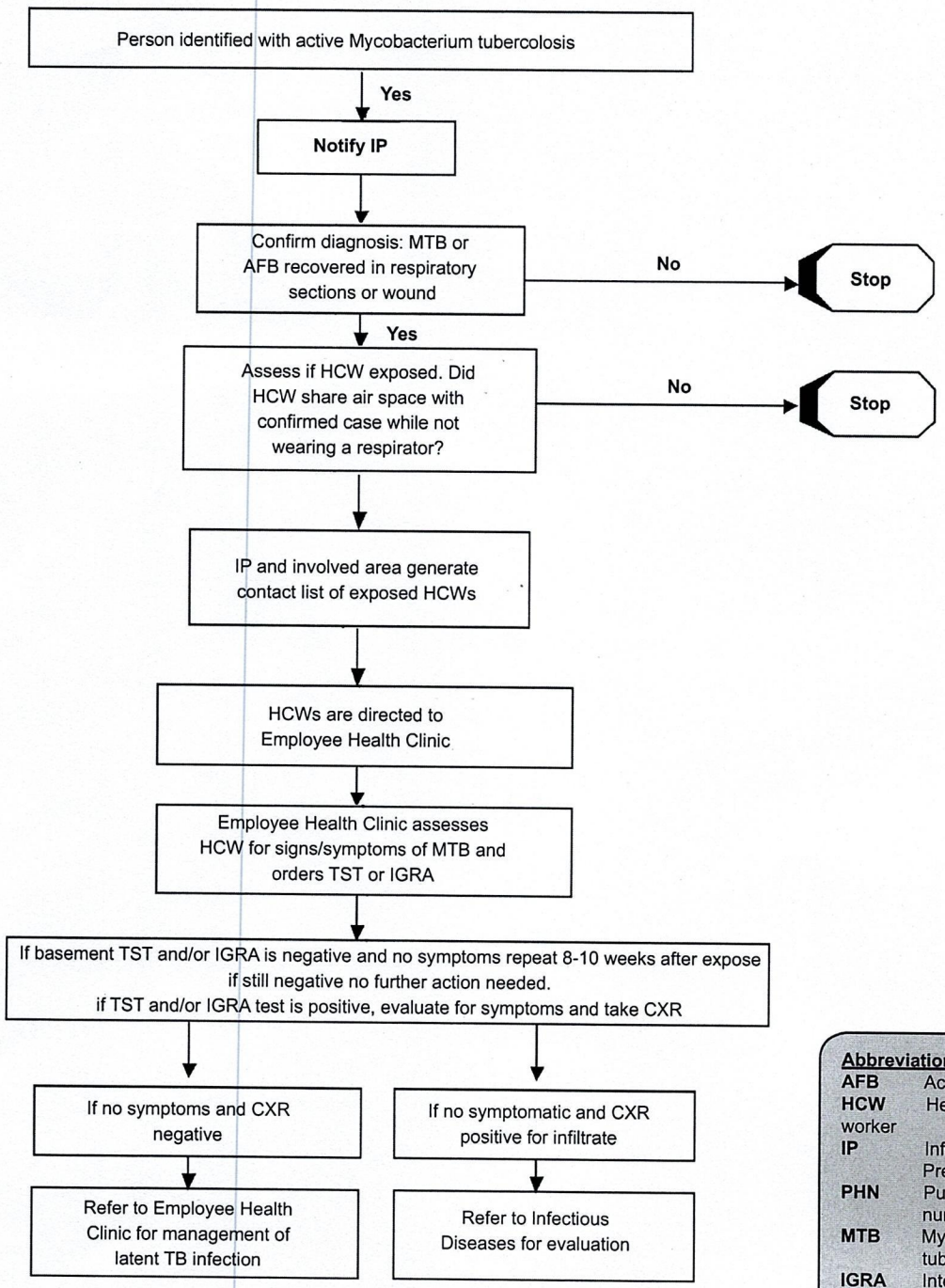
Rubella Exposure



Abbreviations:

HCW	Healthcare Workers
IP	Infection Preventionist
IgG	Immunoglobulin G
IgM	Immunoglobulin M
Pt	Patient

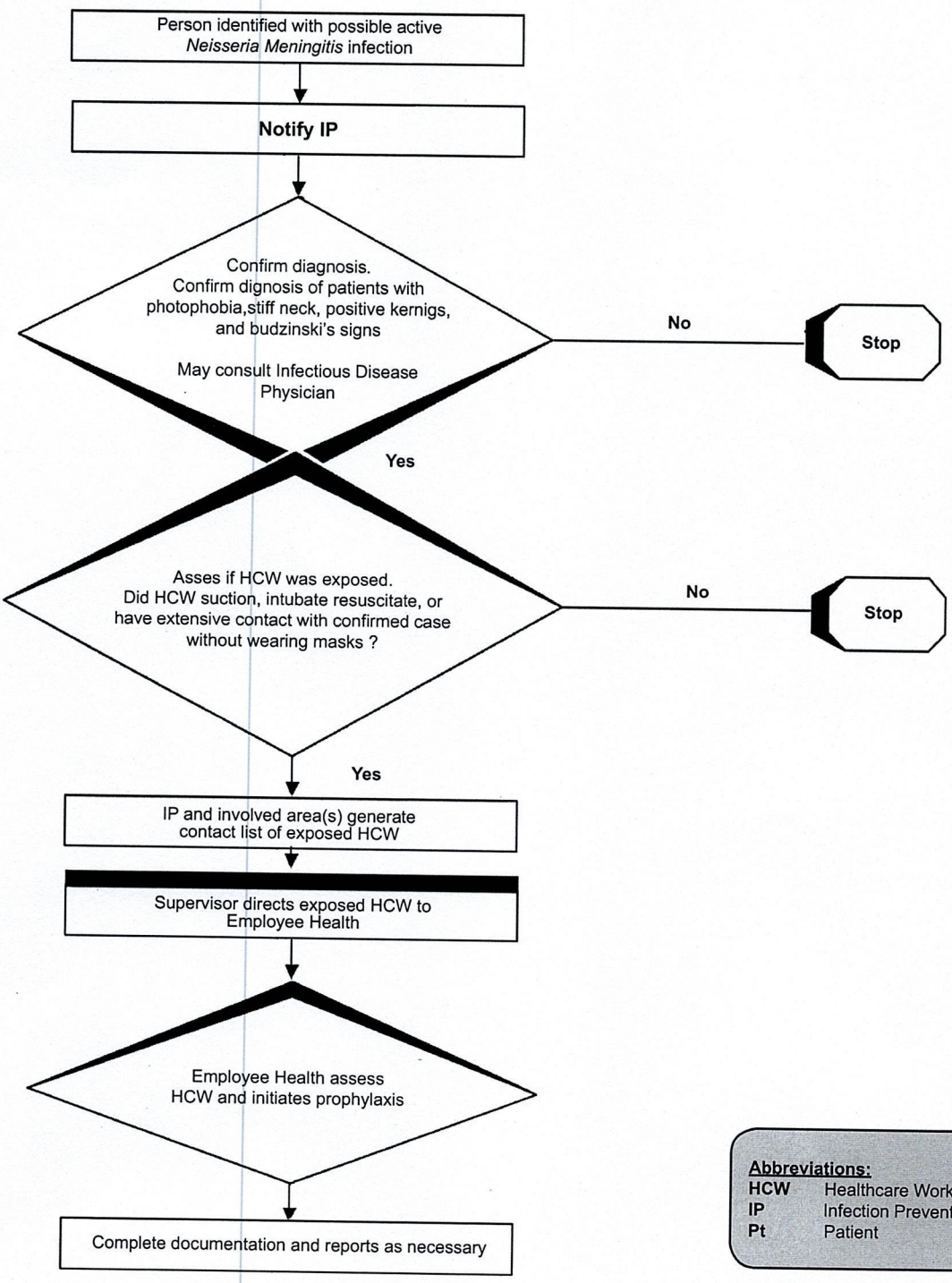
Mycobacterium Tuberculosis Exposure



Abbreviations:

AFB	Acid-fast bacilli
HCW	Healthcare worker
IP	Infection Preventionist
PHN	Public health nurse
MTB	Mycobacterium tuberculosis
IGRA	Interferon-gamma release assay

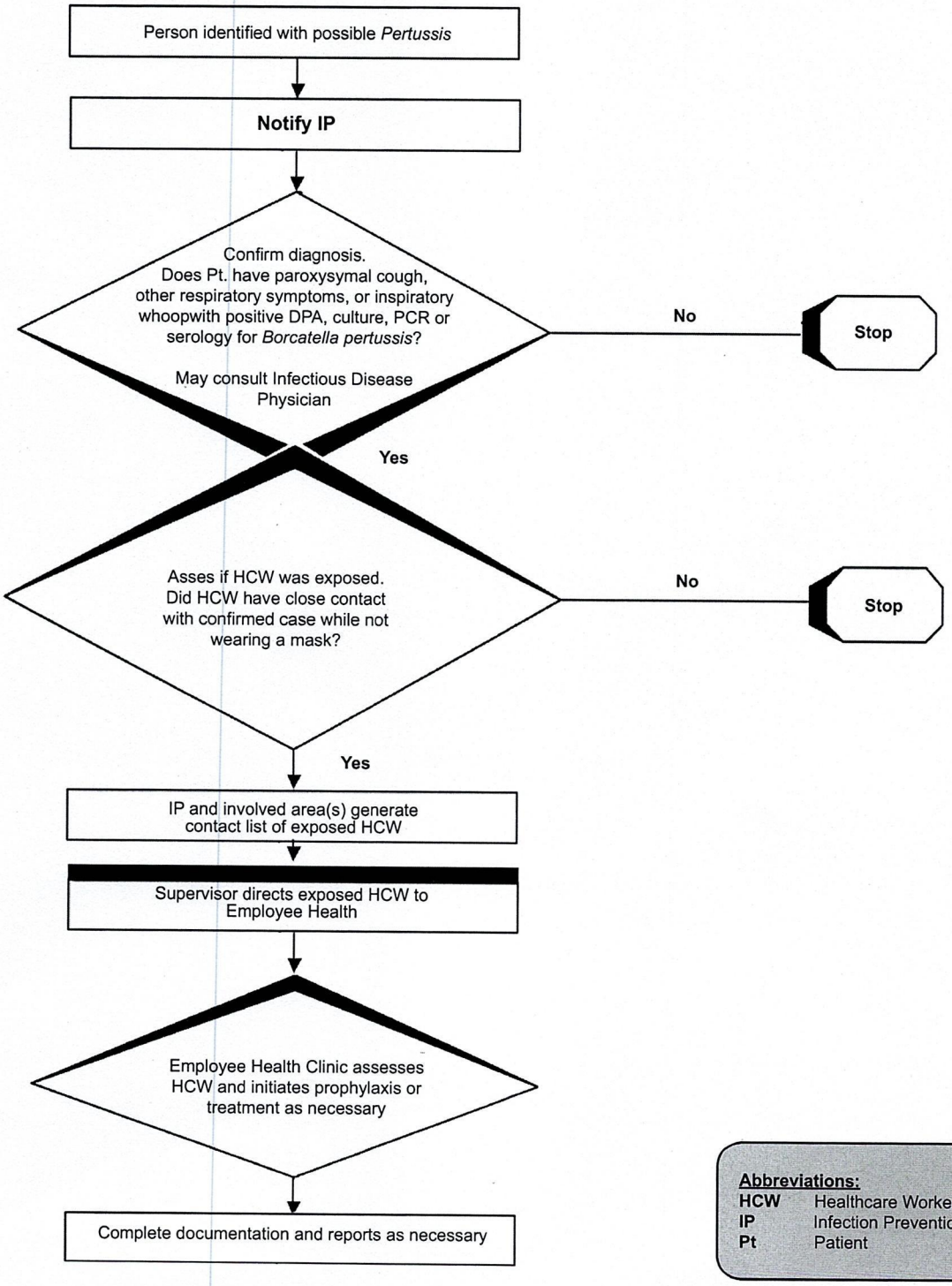
Neisseria Meningitis Exposure



Abbreviations:

HCW	Healthcare Workers
IP	Infection Preventionist
Pt	Patient

Bordatella Pertussis Exposure



Abbreviations:

HCW	Healthcare Workers
IP	Infection Preventionist
Pt	Patient

KINGDOM OF SAUDI ARABIA
MINISTRY OF HEALTH
GENERAL DIRECTORATE OF HEALTH AFFAIRS RIYADH
AFIF GENERAL HOSPITAL
POLICIES AND PROCEDURES

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
HEPATITIS B SCREENING AND IMMUNIZATION			APP-IC-011(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-011(3)	4
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To provide guidelines on assessing and administering Hepatitis B immunizations.

1.2. To render all healthcare workers immune to Hepatitis B virus infection by receiving Hepatitis B vaccine.

2.0 DEFINITION (S):

2.1. ***Hepatitis B Vaccine*** – is a biological preparation used for inducing active immunity to Hepatitis B virus through a series of properly timed injections offered to susceptible persons of healthcare workers.

3.0 POLICY STATEMENT(S):

3.1. **Hepatitis B vaccine shall be offered free to all at-risk healthcare workers of Afif General Hospital. At risk employees shall be defined based on their category of work.**

3.2. All new healthcare workers as well as healthcare workers at risk of exposure to blood and body fluids shall tested for Hepatitis B immunity and shall be ensured that adequate immunization is provided to ensure protection against hepatitis B infection and that each HCW poses no risk to others.

4.0 EQUIPMENT/MATERIAL/FORMS:

4.1. Hand hygiene equipment

4.2. Personal protective equipment

4.3. Vaccination materials: vaccine, syringe, needle and alcohol swab, vaccination card.

4.4. Sharp and waste containers

4.5. Record book

5.0 ROLES AND RESPONSIBILITIES:

5.1. The employee health clinic physician and nurse are responsible for all screening and vaccination activities of all healthcare workers.

5.2. It is the healthcare worker's obligation to be aware of their own infectious disease and vaccination status to minimize the risk of disease transmission to patients and other staff.

6.0 PROCEDURE:

6.1. Pre-vaccination counseling:

6.1.1. Screen all new HCWs for HBsAg and anti-HBS.

6.1.2. Offer hepatitis B immunization to those HCWs who are non-immune for Hepatitis B, those with anti-HBs <10m IU/ml.

6.1.3. Explain to all HCWs who refuse immunization the risks of non-immunization and have them sign a refusal form should they refuse immunization.

6.2. Administration of the vaccine

6.2.1. Full course of hepatitis B vaccine series consists of 3 injections (1ml intramuscularly into the deltoid muscle using a needle gauge 22 to 25. Do not administer in the gluteal region, if so, dose is to be repeated.)

6.2.1.1. First dose given at an elected date.

6.2.1.2. 2nd dose – one month after the first dose.

6.2.1.3. 3rd dose – 6 months after the first dose.

6.2.2. One to two (2) months after the last dose, test blood sample for HB antibodies reflecting the level of response to the vaccine for which anti HBs level is expected to be more than 10 ml U/L.

6.2.3. If antibodies is lesser than 10 IU/ml, HCW is re-evaluated by the physician a full second series of 3 doses should be repeated.

6.2.4. 1-2 month after completion of the second series, retest the HCW and anti-HBS level is expected to be more than 10ml U/L.

6.2.5. If the HCW remains anti-HBs negative (lesser than 10 ml U/L) the HCW is considered non-responder and to be counseled accordingly.

6.2.6. For HCWs exposed to HBsAg (+) blood or body fluids that are known not to have responded to primary vaccine series a single dose of HBIG is given and Hepatitis B vaccine is re-started as soon as possible after the exposure.

6.3. Counseling

6.3.1. If 2 vaccine series were done and the HCW remains anti-HBs negative, no further dose is to be given.

6.3.2. Non-responders are considered susceptible to HBV infection so the importance of standard precautions is to be stressed to the HCW.

6.3.3. Non-responders exposed to HBsAg (+) blood or body fluids are to be counseled how to prevent HBV transmission and the need for medical evaluation be emphasized.

6.4. Precautions

6.4.1. Exercise cautions in administering the vaccine to individuals with severely compromised cardiopulmonary status of others in whom a febrile or system reaction should pose a significant risk.

6.4.2. Any serious active infection is a reason for delaying the use of the vaccine except when in the opinion of the physicians, withholding the vaccine entails a greater risk.

6.4.3. Give the vaccine to pregnant women only if clearly needed. Women who are nursing must delay receiving the vaccine unless it is clearly needed.

7.0 RELATED POLICY / CROSS REFERENCES:

7.1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 97: Viral hepatitis. In APIC Text of infection control and epidemiology (4th ed.)
7.2. Red Book. (2012). Report of the Committee on Infectious Diseases. The American Academy of Pediatrics.

8.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA د. شير آغا رئيس مكافحة العدوى	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LINAN NURSING DIRECTOR Sc. # 0843-8386	05 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA د. شير آغا رئيس مكافحة العدوى	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR	07 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Mr. Khaled Al Mutairi QM Director	10 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		17 MAR 2019

9.0 POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	IC16-1	April 1, 2012
Replaced by	APP-IC-011(2)	April 1, 2014
Deleted	APP-IC-011(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-011(4)	April 1, 2019

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
POLICY ON IDENTIFICATION OF EXPOSURE TO SHARP INJURIES			APP-IC-012(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-012(3)	4
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To provide guidelines for the management of needle stick injuries and blood and body fluid exposures in healthcare workers.

2.0 DEFINITION (S):

2.1. ***Other Potentially Infectious Materials (OPIM)*** – means human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids.

2.2. ***Percutaneous Injury*** – a needle sticks injury or cut with sharp object.

3.0 POLICY STATEMENT(S):

3.1. Standard precaution must be observed to prevent the transmission of blood borne pathogens like HIV, Hepatitis B Virus (HBV), Hepatitis C Virus (HCV) and other diseases caused by needle stick injury and blood/body fluid exposure while administering healthcare.

4.0 EQUIPMENT/MATERIAL/FORMS:

4.1. Antiseptic soap/disinfectant solution

4.2. 70% alcohol

5.0 ROLES AND RESPONSIBILITIES:

5.1. Employee Health Physician

It is the responsibility of the employee health physician to take the history from the employee and document the details in medical record.

5.2. EHC nurse is responsible for drawing blood samples (as required) to test for HBsAg, Anti-HBs, Anti-HCV, HIV screening).

6.0 PROCEDURE:

6.1. Report all percutaneous injuries and mucocutaneous exposures to Infection Control Department during working hours and report to Emergency Room (ER) during weekend and holidays.

6.2. Initiate Hepatitis B vaccine when indicated within 24 hours of exposure incident.

6.3. Issue vaccination card to the employee to remind him/her for the next vaccination schedule.

6.4. Upon completion of all three vaccinations, the employee is given a copy of the completed vaccination card and a record is to be maintained.

6.5. If an exposure occurs, the healthcare workers shall do the following immediately:

6.5.1. In case of accidental needle prick:

6.5.1.1. Bleed site gently.

6.5.1.2. Wash with soap and water and cover with dressing.

6.5.1.3. Apply isopropyl alcohol 70%.

6.5.1.4. Check patient's chart (status).

6.5.1.5. Report the incident (to immediate supervisor or head nurse).

6.5.1.6. Fill up the standard OVR form from the ward and have it signed by the head nurse.

6.5.1.7. Proceed to the Infection Control Department with OVR form.

6.5.1.8. Employee Health Physician evaluates the employee.

6.5.2. Mucocutaneous Exposures (Blood/Body Fluid)

6.5.2.1. Flush site with copious amount of water.

6.5.2.2. Follow same procedure in needlestick injury.

6.5.2.3. For human bite: Follow needlestick injury procedures.

6.6. If the source individual is found or known to be Hepatitis C positive, HIV positive, Hepatitis B positive, then the exposed individual needs follow-up by the Infection Control department.

6.7. Employees exposed to viral Hepatitis and HIV are counseled for the duration of follow up.

6.7.1. Refrain from donating blood, plasma or tissue.

6.7.2. Advised pregnant or lactating mother not to breastfeed her baby (for HIV positive).

6.7.3. Safe/protective sexual act on both partners.

7.0 RELATED POLICY / CROSS REFERENCES:

7.1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 100: Occupational health. In APIC Text of infection control and epidemiology (4th ed.)
7.2. HICPAC/CDC Guidelines for isolation precautions: preventing transmission of infectious agents in healthcare setting, 2007
7.3. Herwaldt LA, et al. Exposure workups. Infection Control Hosp Epidemiol 1997; 18:850-71.
7.4. Red Book. (2012). Committee on Infectious Disease. The American Academy of Pediatrics.

8.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR	05 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR	07 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		10 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		17 MAR 2019

9.0 POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	IC17-1	April 1, 2012
Replaced by	APP-IC-012(2)	April 1, 2014
Deleted	APP-IC-012(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-012(4)	April 1, 2019

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INFECTION CONTROL DEPARTMENT

INCIDENT REPORT FORM
(Needle Stick Injury)

Name of Staff: _____ Name of Patient: _____

Age: _____ Sex: _____ Age: _____ Sex: _____

Ward: _____ Nationality: _____

HBV Status: _____ HBV Status: _____

Date & Time of Incident: _____

Specify type of incident:

- Disposing of used of needles
- Administering parenteral injection or infusion therapy
- Drawing of blood
- Recapping needles after use
- Handling linens or trash containing uncapped needles
- Cleaning up after patient care procedures in which needles are used
- Others

Explain details of incident:

_____

_____

_____

_____

Action Taken by Infection Control Practitioner

_____

_____

_____

Reported by:

_____
Name & Signature of Staff

Noted by:

_____
Infection Control Department

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Infection Control Department

NEEDLE STICK INJURY RATE FOR _____

$$\frac{\text{Total number \# of events (injury)}}{\text{Total number \# of full-time employee (FTE)}} \times 100$$

$$\frac{\text{31 needle stick injury}}{\text{437 full-time employee}} \times 100 = 7.09 \text{ injuries per year}$$

Post Exposure Follow-Up

Date of Exposure:

Month day year

Incident Id: | | | | | | |

SOURCE PATIENT

1. WAS THE SOURCE PATIENT IDENTIFIABLE?

☐ Source Known and Tested ☐ Source Known but Not Tested, Reason: _____ ☐ Source Not Known

2. Was the source patient positive for the pathogens below (even tested before this exposure).

Pathogen	Test	Result			Date drawn
Hepatitis B	HbsAg HbeAg Anti Hbs Anti Hbc	1.Positive 1.Positive 1.Positive 1.Positive	2. Negative 2. Negative 2. Negative 2. Negative	3. Not Tested 3. Not Tested 3. Not Tested 3. Not Tested	___/____/_____
Hepatitis C	Anti HCV EIA PCR HCV RNA	1. Positive 1. Positive 1. Positive	2. Negative 2. Negative 2. Negative	3. Not Tested 3. Not Tested 3. Not Tested	____/____/_____
HIV	Anti-HIV #CD4 cell count Antigen Load Other	1. Positive Count_____ RNA copies/ml_____	2. Negative	3. Not Tested 3. Not Tested 3. Not Tested	___/____/_____
Other	_____	_____			____/_____/_____

3. If the source patient was believed to be in the high-risk group for the blood borne pathogen, check all that apply.

☐ Blood product recipient ☐ Elevated enzymes ☐ Sexual ☐ Dialysis ☐ Injection drug user
☐ Hemophilia ☐ Others _____

4. ***if the source patient was HIV positive, had been treated with any of the following before exposure?***

☐ Unknown ☐ 3TC ☐ IDV ☐ AZT ☐ DDC ☐ Other _____

5. Additional source patient comments:

HEALTH CARE WORKER

1. health care worker was seen by:

☐ Employee health clinic ☐ Emergency ☐ Other _____

2. was the HCW was vaccinated against HBV before the exposure?

☐ No ☐ 1 dose ☐ 2 doses ☐ 3 doses ☐ 4 doses ☐ more than 4 doses

If yes, antibody level upon completion, if listed _____ Date tested ____/_____/_____

3. was the HCW pregnant? ☐ Yes ☐ No ☐ Not Applicable

If yes which trimester? ☐ 1st ☐ 2nd ☐ 3rd

4. results of the base line tests.

Pathogen	Test	Result			Date drawn	# of days next test
Hepatitis B	HbsAg	1.Positive	2. Negative	3. Not Tested	__/__/_____	__/__/_____
	HbeAg	1.Positive	2. Negative	3. Not Tested		__/__/_____
	Anti Hbs	1.Positive	2. Negative	3. Not Tested		__/__/_____
	Anti Hbc	1.Positive	2. Negative	3. Not Tested		__/__/_____
Hepatitis C	Anti HCV EIA	1. Positive	2. Negative	3. Not Tested	__/___/_____	__/__/_____
	PCR HCV	1. Positive	2. Negative	3. Not Tested		__/__/_____
	RNA	1. Positive	2. Negative	3. Not Tested		__/__/_____
HIV	Anti-HIV	1. Positive	2. Negative	3. Not Tested	__/__/_____	__/__/_____
	Other	_____				__/__/_____

5. Circle all the post exposure treatment/prophylaxis given to the HCW & FILL IN THE DOSAGES.

Treatment	Dose	Date Given	Duration/Comments
HBIG	1. _____ 2. _____	_ _/__/_____ _ _/_ _/_____	_____ _____
HVB Vaccine	1. _____ 2. _____ 3. _____ Booster. _____	_ _/_ _/_____ _ _/_ _/_____ _ _/_ _/_____ _ _/_ _/_____	_____ _____ _____ _____
HIV Antiretroviral HIV Antiretroviral HIV Antiretroviral Other	_____ _____ _____ _____	_ _/_ _/_____ _ _/_ _/_____ _ _/_ _/_____ _ _/_ _/_____	_____ _____ _____ _____

6. Results of the follow-up tests:

Pathogen	Test	Result			Date drawn	# of days to next test
Hepatitis B	Panel 1					
	HBsAg	1 Positive	2 Negative	3 Not Tested	_ _/- _/_____	_____
	Anti HBs	1 Positive	2 Negative	3 Not Tested		_____
	Anti HBc	1 Positive	2 Negative	3 Not Tested		_____
	Panel2					
	HBsAg	1 Positive	2 Negative	3 Not Tested	_ _/_ _/_____	_____
	Anti HBs	1 Positive	2 Negative	3 Not Tested		_____
	Anti HBc	1 Positive	2 Negative	3 Not Tested		_____
	Panel 3					
	HBsAg	1 Positive	2 Negative	3 Not Tested	_ _/_ _/_____	_____
	Anti HBs	1 Positive	2 Negative	3 Not Tested		_____
	Anti HBc	1 Positive	2 Negative	3 Not Tested		_____
Hepatitis C	Anti HCV (1)	1 Positive	2 Negative	3 Not Tested	_ _/_ _/____	_____
	Anti HCV (2)	1 Positive	2 Negative	3 Not Tested		
HIV	Anti-HIV (1)	1 Positive	2 Negative	3 Not Tested	_ _/_ _/____	_____
	Anti-HIV (2)	1 Positive	2 Negative	3 Not Tested	_ _/_ _/____	_____
	Anti-HIV (3)	1 Positive	2 Negative	3 Not Tested	_ _/_ _/_____	_____
	Anti- HIV (4)	1 Positive	2 Negative	3 Not Tested	_ _/_ _/_____	_____
Other	_____	_____			_ _/_ _/____	_____
	_____	_____			_ _/_ _/____	_____

7. Additional Comments:

_____

_____

8. Follow-up prophylaxis. Serological Results:

Time	Date	HIV	HBsAG	HCV
_____	_ _/_ _/_____	_____	_____	_____
_____	_ _/_ _/_____	_____	_____	_____
_____	_ _/_ _/_____	_____	_____	_____

9. Follow-up of HBV vaccination:

One dose	Date
Base vaccination	_ _/_ _/_____
Injection after 1 month	_ _/_ _/_____
Injection after 2 months	_ _/_ _/_____
Injection after 1 year	_ _/_ _/_____

9. Follow-up of Anti- HIV prophylaxis:

Compliance? 1 Good 2 Poor/Non 3 Testing Continues

Interruptions? 1 Yes

AZT Stopped from _ _/_ _/_____ To _ _/_ _/_____

3TC Stopped from _ _/_ _/_____ To _ _/_ _/_____

Indinavir Stopped from _ _/_ _/_____ To _ _/_ _/_____

2 No

Reduction of dosage? 1 Yes

AZT reduction from_____ mg to _____ mg

3TC reduction from _____ mg to _____ mg

Indinavir reduction from _____ mg to _____ mg.

2 No

Toxicity or side effects?

1 Yes

Which? _____

How serious? _____

Date Beginning _ _/_ _/_____ Date ending _ _/_ _/_____

2 No

Action Taken as a result of side effects:

AZT Reduction of dosage: _ _/_ _/_____

3TC Reduction of dosage: _ _/_ _/_____

Indinavir Reduction of dosage: _ _/_ _/_____

Last date taken:

AZT Stopped _ _/_ _/_____

3TC Stopped _ _/_ _/_____

Indinavir Stopped _ _/_ _/_____

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICY NUMBER & VERSION
MANAGEMENT OF SUSPECTED / CONFIRMED TUBERCULOSIS			APP-IC-013(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-013(3)	6
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To provide a clear guideline for screening and identification of patients with suspected/confirmed infectious tuberculosis (TB) as rapidly as possible.

1.2. To familiarize the healthcare workers about the epidemiology of TB to ensure prompt detection thus airborne isolation measure are initiated to interrupt the transmission of infectious agents within the hospital.

2.0 DEFINITION (S):

2.1. ***Mycobacterium tuberculosis*** (MTB) – aerobic, poorly staining gram-positive rod which is the causative agent of TB.

2.2. ***Mantoux Tuberculin Skin Test***– The standard method of determining whether a person is infected with mycobacterium tuberculosis. Reliable administration and reading of the TST requires standardization of procedures, training, supervision and practice.

2.3. ***Close contact*** - A close contact is defined as a person who had close, regular, prolonged contact with the MTB patient while he or she was infectious without wearing a proper PPE, especially in small, poorly ventilated place.

3.0 POLICY STATEMENT(S):

3.1. Healthcare workers who are at the first point of contact in the emergency room or ambulatory care area shall be trained to ask questions that will facilitate identification of patients with signs and symptoms suggestive of tuberculosis.

3.2. Patients with signs and symptoms suggestive of TB shall be evaluated promptly to minimize the amount of time spent in the emergency or ambulatory care areas.

4.0 EQUIPMENT/MATERIAL/FORMS:

4.1. Negative Pressure Room (not available in AGH) or AIIR

4.2. PPE- gown -/ gloves/ N-95 mask

4.3. Hand Hygiene facilities

5.0 ROLES AND RESPONSIBILITIES:

5.1. All healthcare workers are responsible to adhere strictly in the compliance of this policy in order to provide a safe and healthy working environment in the administration of healthcare services.

6.0 PROCEDURE:

6.1. Early Detection. The medical staff adopts criteria for assessment and screening of patients who are suspected of being at risk of TB. The triage process in the Emergency Room and at the OPD

6.2. Identify patients who have active TB at the time of triage.

6.3. Patients who are at risk for TB includes:

- 6.3.1. Those who lives in endemic area for TB
- 6.3.2. History of incarceration or IV drug use
- 6.3.3. History of exposure to tuberculosis
- 6.3.4. Individuals co-infected with HIV
- 6.3.5. Elderly persons

6.4. Diagnostic Evaluation.

- 6.4.1. TB must always be included in the differential diagnosis, if the patient has any of the following symptoms:
  - 6.4.1.1. Positive PPD skin test (greater than 10 mm induration).
  - 6.4.1.2. Productive cough for six (6) weeks.
  - 6.4.1.3. Fever, night sweats for greater than three (3) months.
  - 6.4.1.4. Emigrated from an area where TB is endemic (i.e., Asia, Mexico, South America, Africa) and has been in the US for less than five (5) years.

6.4.1.5. Has a suspect chest x-ray or lungs show an infiltrate on X-ray.

6.4.1.6. Has recently been a prison or jail inmate

6.4.2. Evaluate promptly patients with signs or symptoms suggestive of TB to Minimize the amount of time spent in the Emergency Room of OPD.

6.4.3. Follow airborne precautions while the diagnostic evaluation is being conducted for such patients.

6.4.4. Place such patients in a separate area apart from other patients, and not in open waiting areas (isolation room in ER).

6.4.5. Provide patient with surgical masks to wear and instruct them to keep their masks on at all times.

6.4.6. Provide patients with tissues and instruct them to cover their mouths and nose with the tissue when coughing or sneezing.

6.4.7. Schedule appointments for such patients for infectious disease clinics in order to avoid exposing other patients and HCW's.

6.4.8. Place patient in the isolation room, i.e., negative pressure room if available. Ideally, ambulatory-care setting in which patients with TB are frequently examined or treated shall have a TB isolation room(s) available.

6.5. The admission process:

6.5.1. Place a surgical mask on the patient and admit to isolation room (for all patients with suspected or confirmed tuberculosis).HCW must wear the N 95 particulate mask while performing patient care activities.

6.5.2. Admit to negative pressure isolation room.

6.5.3. Perform a Chest X-ray to rule out the presence of cavitary lesions, which are indicative of infectivity.

6.5.4. Maintain airborne precautions during the screening process.

6.5.5. Discontinue precautionary measures if the Chest X-ray is normal and the patient has a normal immune system.

6.5.6. Obtain 3 sputum specimens on three different days consecutively for Acid Fast Bacilli (AFB) testing (the first specimen to be obtained in ER or clinic, the subsequent samples to be obtained after admission) if the chest x-ray shows abnormal finding

6.5.7. Discontinue isolation if AFB testing is negative.

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6.5.8. Maintain precautions if AFB testing is positive.

6.5.9. Placed on adequate therapy for more than 14 days.

6.5.10. Symptom free with three negative sputum samples for AFB on 3 different days.

6.6. Tracing Contacts of Infectious Tuberculosis Patients.

6.6.1. Investigate all persons who are close contacts of a presumed or confirmed infectious tuberculosis cases for possible contraction of the disease.

6.6.2. HCW's who are in close contacts of an infectious TB are to be followed up by the Infection Preventionist who will further refer them to the Employee Health Clinic for evaluation.

6.7. Isolation of Patient:

6.7.1. Place patient in a single, negative pressure room.

6.7.2. Ensure that doors and windows are closed at all times to maintain negative pressure.

6.7.3. PPE must be readily available for use.

6.7.4. Wear a respiratory protection (N 95) respirator) before entering the room of patient with suspected or confirmed Pulmonary TB. Remove the mask when outside the room.

6.7.5. Management of patient:

6.7.5.1. Restrict patient movement outside room during the infectious period (if patient to be transported refer to APP-IC- 07(4) Transporting Patients on Expanded Precautions.

6.7.5.2. When transferring patient the receiving department (e.g., X-ray) must be informed of patient isolation status to permit implementation of proper precautions.

6.7.5.3. Place a surgical mask on the patient if he/she is to leave the room.

6.7.5.4. Encourage the patient to observe strict hand hygiene with personal hygiene.

6.7.5.5. Limit number of individuals entering the room.

6.7.5.6. Educate HCW's and visitors regarding the importance of adherence to these Policies.

6.8. Discontinuation of isolation precautions:

6.8.1. Discontinue isolation once active disease was ruled out.

6.8.2. If diagnosed with active disease:

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6.8.2.1. Must be on adequate therapy more than 14 days.

6.8.2.2. Recover clinically with negative sputum for AFB on 3 separate days.

7.0 RELATED POLICY / CROSS REFERENCES:

7.1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 95: Mycobacteria. In APIC Text of infection control and epidemiology (4th ed.).
7.2. Centers for Disease Control and Prevention (CDC). Guidelines for Preventing the Transmission of Mycobacterium Tuberculosis in Healthcare Settings. MMWR. 2005.
7.3. HICPAC/CDC Guidelines for isolation precautions: preventing transmission of infectious agents in healthcare setting, 2007.

8.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Nurse	DR. SHER AGHA	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR Sc. # 06-RN-8586	05 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR	07 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Dr. Khalid B. AlMutairi	10 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		17 MAR 2019

9.0 POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	IC18-1	April 1, 2012
Replaced by	APP-IC-013(2)	April 1, 2014
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Replaced by New Policy and Procedure	APP-IC-013(4)	April 1, 2019

Kingdom of Saudi Arabia
Ministry of Health
Public Health Agency
NTCPP

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البرنامج الوطني لمكافحة الدرن
National Tuberculosis Control & Prevention Program

Region/ District _____

Form :2

استمارة تبليغ وتقرير طبي عن حالة درن

(Notification & Medical report of TB case)

First Part: Personal Data الجزء الأول: البيانات الشخصية

Sex: _____ الجنس:	Age: _____ العمر:	Patient name: _____ إسم المريض:
Investigation ID in HESN رقم التقصي ببرنامج حصن	TB Code	Hosp. file no. رقم ملف المريض
المهنة: _____	الجنسية: _____	
Iqama No. for Non-Saudis رقم الإقامة لغير السعوديين	ID No. for Saudis رقم الحفيظة للسعوديين	
Phone No. رقم الهاتف:	Sponsor's name إسم الكفيل: _____	
تاريخ الإصدار: / /	رقم الحفيظة للكفيل:	
Sponsor's address: عنوان الكفيل: _____		
Patient's address: عنوان سكن المريض: _____		
Work address: عنوان عمل المريض : _____		
الجهة المحولة للمريض: _____		

Second Part : الجزء الثاني

أ- الفحص السريري Signs & symptoms

☐ date of onset	تاريخ بداية الأعراض
☐ Cough	1. كحة
☐ Period in weeks	• المدة بالأسبوع
☐ Sputum	2 . بلغم
☐ Haemoptysis	3 . نفث دموي
☐ Fever	4 . حرارة
☐ Night sweating	5 . تعرق ليلي
☐ Chest pain	6 . ألم بالصدر
☐ loss of weight	7 . نقص الوزن
☐ Loss of appetite	8 . فقدان الشهية
☐ other signs & symptoms	9 . أعراض وعلامات أخري

ب- السابق المرضي التاريخ Past Medical history

☐ Diabetes M.	1. البول السكري
☐ Lung diseases	2 . أمراض رئوية
☐ chronic renal failure	3 . فشل كلوي مزمن
☐ AIDS	4 . نقص المناعة المكتسب
☐ Immunosuppressive therapy	5 . مثبطات المناعة
☐ Treatment period in years	فترة العلاج بالسنوات
☐ Cancer	6 . سرطان
☐ Type	نوعه
☐ History of BCG vaccination	7. جي سي بي -بال التطعيم سابقة
☐ period in years	التاريخ بالسنوات
• ☐ Scare النذبة ☐ نعم ☐ لا	
☐ Previous history of TB treatment	8 . علاج سابق للدرن
☐ Period in months	9 . مدة العلاج بالشهور

Form :2

ج- الفحوصات والتحاليل: Investigations					
TST	Date: / /	Induration in mm:			
Site:	Pathology ☐	Body Fluid ☐	Sputum ☐	نوع العينة: Sample type	
X-Ray	Normal ☐	Abnormal ☐	Not Done ☐		
Lab. Number:			Date: / /		
Microscopy	Positive ☐	Negative ☐	Not Done ☐		
Xpert-MTB	MTB not detected ☐	R-Sensitive ☐	R-Resistant ☐	Not Done ☐	
Culture	Positive ☐	Negative ☐	Not Done ☐	Pending ☐	
Histopathology	Positive ☐	Negative ☐	Not Done ☐	Pending ☐	
HIV Results	Positive ☐	Negative ☐	Not Done ☐		
CPT	Date Started: / /	ART:	Date Started: / /		

د- التصنيف حسب مكان الإصابة (Classification according to site):	
☐ رئوي (Pulmonary)	
☐ خارج الرئة (EPTB)	Site: of EPTB

هـ- تصنيف المريض patient classification:					
Others ☐	After Failure ☐	Transferred-in ☐	TAD ☐	Relapse	New ☐

و- النظام العلاجي (Treatment category):		
Second line ☐	CAT2 ☐	CAT1 ☐

1. أدخل المستشفى بتاريخ (Date of Hospitalization) .....بتاريخ: / /
2. بدأ العلاج بتاريخ (Date starting treatment) .....بتاريخ: / /
3. حول للعلاج إلى(Transferred to) .....بتاريخ: / /
4. أعطي موعد مع الأخصائي الاجتماعي بتاريخ .....بتاريخ: / /

Second Part: الجزء الثاني

إسم الطبيب المعالج	التوقيع	التاريخ

قراءة اختبار التيوبركلين تكتب بالمليمتر

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICY NUMBER &VERSION
POLICY ON IDENTIFICATION OF EXPOSURE TO VARICELLA			APP-IC-014(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-014(3)	4
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To describe the guidelines on assessing and administering varicella vaccine for healthcare workers in order to minimize the spread of varicella infection.

2.0 DEFINITION (S):

2.1. Varicella - is a highly contagious disease caused by Varicella Zoster Virus (VZV) which is transmitted from person to person by direct contact, droplet or aerosol from vesicular fluid or skin lesions or secretions from the respiratory tract.

3.0 POLICY STATEMENT(S):

3.1. All employees shall be screened for a history of varicella zoster infection at the time of employment in order to prevent possible transmission of vaccine preventable diseases during administration of healthcare services.

3.2. The employee shall be instructed on susceptibility, signs and symptoms of varicella infection and the communicability of the disease.

4.0 EQUIPMENT/MATERIAL/FORMS:

4.1. Hand hygiene equipment

4.2. Personal Protective Equipment

4.3. Sharp and waste containers

4.4. Waste Container

5.0 ROLES AND RESPONSIBILITIES:

5.1. The employee health clinic physician and nurse are responsible for all screening and vaccination activities of all healthcare workers.

5.2. It is the healthcare worker's obligation to be aware of their own infectious disease and vaccination status to minimize the risk of disease transmission to patients and other staff.

6.0 PROCEDURE:

6.1. Contraindications to varicella vaccine:

- 6.1.1. Hyper sensitivity to any vaccine component, including gelatin.
- 6.1.2. A history of anaphylactic reaction to neomycin
- 6.1.3. Blood dyskaryosis, leukemias, lymphomas
- 6.1.4. Immunosuppressant therapy (including high dose corticosteroids in the previous months)
- 6.1.5. Active untreated tuberculosis
- 6.1.6. Any febrile respiratory illness or other active febrile illness.
- 6.1.7. Pregnancy.

6.2. Pre Vaccination counseling:

- 6.2.1. Advise all HCW about the seriousness of Varicella infection transmitted to patients, especially to
  - 6.2.1.1. Elderly patients
  - 6.2.1.2. Neonates
  - 6.2.1.3. Immuno-compromised patient
  - 6.2.1.4. Transplant patients.
- 6.2.2. Test those who are unaware of their serological status for varicella antibodies, he/she who found to be immune will require no further action , and the result of varicella serology should be documented in the employees medical record
- 6.2.3. All employees who are non-immune shall be offered the varicella zoster vaccine
- 6.2.4. Administer the vaccine in a 0.5ml subcutaneous dose at the outer aspect of the upper arm (deltoid muscle), and administer second dose 4 to 8 weeks later.

6.2.5. Refer vaccination for at least 5 months following blood or plasma transfusion or administration of immune globulin (including VZIG) because passively acquired antibodies may inactivate the vaccine.

6.2.6. Do not administer immunoglobulin concurrently with the vaccine.

6.2.7. Avoid use of Salicylates 6 weeks following vaccination.

6.2.8. Avoid administration of immunoglobulin for 2 months unless it outweighs the benefits of immunization.

6.2.9. Avoid pregnancy within 3 months post vaccination.

6.2.10. Routine serologic testing for varicella immunity after administration of two doses of vaccine is not considered necessary because 99% of persons become seropositive after the second dose.

7.0.RELATED POLICY / CROSS REFERENCES:

7.1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 100: Occupational health. In APIC Text of infection control and epidemiology (4th ed.)
7.2. Centers for Disease Control and Prevention (CDC). Prevention of varicella: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR June 22, 2007/56 (RR04).1-40. Updated: January 31, 2008.

7.3. Red Book (2012)

8.0.APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	3 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR Sc. # 06-RN-8336	5 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	3 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN	7 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		0 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		7 MAR 2019

9.0.POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	IC19-1	April 1, 2012
Replaced by	APP-IC-014(2)	April 1, 2014
Deleted	APP-IC-014(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-014(3)	April 1, 2019

ADMINSTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICY NUMBER &VERSION
IMMUNIZATION GUIDELINES FOR HEALTHCARE WORKERS			APP-IC-015(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-015(3)	12
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To ensure that all healthcare workers are determined physically and psychologically free from any health problems that may affect their work performance.

1.2. To ensure that appropriate care is provided to staff in the most timely and effective manner.

1.3. To monitor the health status of all healthcare workers, who have been exposed to blood borne and other infectious disease.

2.0 DEFINITION (S):

2.1. All Healthcare workers are at some risk of exposure to an environment in which the potential of an unknown infection hazard always exists

3.0 POLICY STATEMENT(S):

3.1. The employee health clinic established shall ensure that a safe environment is provided to all healthcare personnel and clients.

3.2. The employee health clinic services shall include:

- 3.2.1. Pre-employment assessment and screening
- 3.2.2. Tuberculin Skin Test and Prophylaxis
- 3.2.3. Immunization (Refer Policy)
- 3.2.4. Post Exposure Management for Healthcare Workers (Refer Policy)
- 3.2.5. Counseling
- 3.2.6. Work restriction

3.2.7. Medical advice and treatment

3.3. It shall be ensured that all illness which is communicable shall be investigated and managed appropriately to prevent cross infection.

3.4. The employee health clinic shall create and maintain a progressive record filing for all employees.

3.5. All new healthcare workers are required to undergo a pre-employment physical inventory and physical/ medical examination prior to commencement of work. Mandatory screening shall be required for all employees to determine baseline and exposure status.

4.0 EQUIPMENT/MATERIAL/FORMS:

4.1. Hand hygiene equipment

4.2. Personal Protective Equipment

4.3. Vaccination materials: Vaccine, syringe and needle and alcohol swab, vaccination card

4.4. Record book

5.0 ROLES AND RESPONSIBILITIES:

5.1 The employee health physician is responsible for pre-employment evaluation and screening of all new employees.

5.2 Physician in charge of the employee health clinic is responsible to give orientation about screening and vaccination activities in coordination with the infection prevention and control department.

5.3 Employee health nurse works on full time basis to ensure credible recording and safe filing of confidential record of all healthcare workers.

6.0 PROCEDURE:

6.1. Pre-Employment

6.2. An employee opens a file then proceeds to employee health clinic.

6.3. Initial evaluation is performed by a licensed physician designated by the hospital.

6.4. Pre-employment history form completed, physical form, copy of laboratory and other test reports will form the basis of a medical record chart of each employee.

6.5. Health inventory is done initially to serve as a baseline to determine any future work

related problems or exposure to infectious diseases. Information required includes:

6.6. History of any conditions that may predispose the healthcare worker in acquiring or transmitting infectious disease.

6.6.1. History of exposure to tuberculosis, hepatitis, dermatologic conditions chronic draining of open wounds and immune-deficient conditions that may either increase the likelihood of transmitting diseases to patients or unusual susceptibility to infection.

6.7. Pre-employment screening to be done includes the following:

6.7.1. Hepatitis B (Refer Policy)

6.7.2. Hepatitis C and Human Immunodeficiency Virus (HIV)

6.7.3. Tuberculin Skin Test (TST).

6.7.4. Mumps, Measles, Rubella, Varicella (Chickenpox)serology test (Refer Policy)

6.7.4.1. Send screening request signed by the physician to the laboratory to avoid non-acceptance of request.

6.7.4.2. Test results are generated through the computer, physician decides the employee status and schedules follow-up as needed.

6.7.4.3. The completed pre employment history form, physical form, official copy of laboratory and other tests reports will form the basis of a medical record chart for each employee

6.8. Tuberculin Skin Test

6.8.1. Administration Of TST

6.8.1.1. Tuberculin units (5 TU- usually 0.1 ml) of purified protein derivative (PPD) are injected through a tuberculin syringe intra dermally on the volar (palmar) surface of the forearm. A properly placed test raises a small wheal at the site of the injection.

6.8.1.2. The tuberculin skin test can be administered on the same day with measles immunization and be read as usual. If a day or more has elapsed after the measles immunization, tuberculin skin testing should be delayed for 4 to 6 (4-6) weeks after the immunization. There is no evidence that administration of other vaccines (Rubella, Mumps, Influenza and Oral Polio) has any influence on the tuberculin skin test reaction.

6.8.1.3. Tuberculin skin testing can be done anytime in relation to the administration of these vaccines. A tuberculin test that was improperly administered or not read within the recommended time period can be repeated at any time selecting a site on the other arm.

6.8.2. Reading:

6.8.2.1. After TST, the new hire is to return after 2-3 days to have the skin test read for induration. If skin test causes a reaction with greater than 10 mm induration, no additional skin testing is required.

6.8.2.2. If the skin test develops no induration or an induration area is less than 10mm, employee will return no earlier than seven (7) days and not later than 21 days to receive second dose (1-3 weeks). Chest x-ray is required only for those employees who have a significant TST with an induration of greater than 10mm.

6.8.3. Classification of initial TST reaction:

6.8.3.1. Interpret ≥ 5mm induration as positive for:

i. Household contacts with infectious tuberculosis cases.
ii. Persons with abnormal chest x-ray suggesting old healed tuberculosis.
iii. Persons with HIV infection.

6.8.3.2. Interpret >10mm indurations' as positive for:

i. Medical risk factors (i.e., diabetes mellitus, alcoholism and drug abuse).
ii. From high prevalence areas for tuberculosis.
iii. From areas of low socioeconomic status.
iv. Residents and staff of long term care facilities (e.g., jails and prisons)
v. Children younger than 4 years of age.
vi. Persons who inject drugs whose HIV status is negative.
vii. Healthcare worker.

6.8.3.3. Interpret ≥15mm indurations' as positive for:

i. No risk factors
ii. Living in areas with no TB

iii. Those with negative TST who undergo repeated skin testing (e.g. HC) with an increase in reaction size ≥ 10mm within a 2 year period is considered a skin test conversion indicative of recent exposure to tuberculosis and further evaluation required.

6.8.4. Response to screening:

6.8.4.1. If the initial TST is significant (greater than 10 mm indurations') or if a second skin test is done and the reading is significant (reaction changes from greater than 10 mm with an increase of at least 6 mm) and the chest film is negative, the employee will be referred to employee health clinic for the following:

i. Healthcare worker to be informed about their risk of developing active TB.

ii. Investigate clinically and chest X-ray to be done to rule out TB disease.

iii. Counsel on issues pertinent to receiving prophylaxis therapy.

iv. Those who refuse treatment for Latent TB infection should be followed up and instructed to seek medical advice if they manifest signs and symptoms suggestive of active TB disease.

v. Chemo-prophylactic preventive therapy initiated only when active TB has been excluded.

vi. If the skin test and chest film are both significant on pre-employment testing, the employee will be placed immediately on isolation and is to be referred to the infectious disease. If diagnosis of active TB disease has been made, the new hire will be delayed in starting work until the following criteria have been met.

vii. Diagnosis of active TB has been ruled out by medical evaluation, or if active TB disease is diagnosed, treatment is initiated and the new hire will be determined non-infectious when all three (3) criteria below are met.

viii. Has had three (3) consecutive negative AFB sputum smears taken for three consecutive days (one specimen must be taken early morning).

ix. Had completed at least two (2) weeks of multi-drug anti-tuberculosis therapy (if AFB sputum smear was positive).

x. Exhibits clinical improvement.

xi. If second (TST) reading is negative, the person maybe cleared for hire and is classified as uninfected and a subsequent positive reaction is likely to represent a new exposure infection.

6.8.5. **Subsequent Annual Screening:**

6.8.5.1. Employees having a previous negative TST will be retested annually.

6.8.5.2. If an employee's TST becomes significant, the employee will be referred to the employee health clinic for follow –up, whether or not a documented situation of exposure to an infected patient or fellow employee occurred during the last year interval.

6.9. **Hepatitis B screening:**

6.9.1. All new HCW's are to be tested for Hepatitis B immunity.

6.9.2. Give three (3) doses of Hepatitis B at 0, 1, 6 intervals.

6.9.3. Anti HBs level is expected to be more than 10ml U/L after one month but if negative, a full 2nd series is to be administered.

6.9.4. If anti HBs remains negative one month after the second series, HCW is considered non-responder and no further dose is given. Importance of hand hygiene is to be stressed in all patient care.

6.10. **Varicella (chickenpox) screening:**

6.10.1. Immune staff need not be screened with Varicella IGg those staff who never had chickenpox and were exposed. Immunize staff that is negative for Varicella.

6.10.2. Varicella vaccine is given 1 to 2 months apart, to be given 3 to 5 days post exposure to Varicella.0.5 ml dose given IM at the deltoid area at an elected date and second dose 4 to 8 weeks later. Unvaccinated susceptible HCW exposed to Varicella IGg are potentially infectious 10 to 21 days post exposure.

6.10.3. Exclusion from duty is indicated from the 10th day after the first exposure through the 21st day and until lesions are dry and crusted.

6.11. **Post exposure screening:**

6.11.1. Sharp and Needlestick injury

6.11.2. The injured health worker reports to the employee health clinic with his/her OVR.

6.11.3. Employee heath physician takes history of the incident from the employee and documents at the employee's medical file.

6.11.4. Physician initiates hepatitis immunoglobulin within 24 hours post exposure and no later than 7 days (only for known Hepatitis B source or if the source is not known).

6.11.5. Do baseline serology on the source patient: HbsAg, Anti HCV, anti HIV if such tests have not been completed.

6.12. **Hepatitis C:**

6.12.1. Immediately post exposure – do HCV-Ab and ALT (LFT)

6.12.2. 2 weeks post exposure, HCW repeats visit to employee health clinic to see result.

6.12.3. HIV-Human Immuno-deficiency virus

6.12.4. Determine the baseline status of the source patient.

6.12.5. Screen the HCW first week post exposure.

6.12.6. Seronegative HCW is retested in 6 weeks, 12 weeks and 6 months post exposure.

6.12.7. Advice HCW to seek medical evaluation with the employee health clinic for any acute febrile illness within 12 weeks post exposure.

6.12.8. Healthcare worker undergoes counseling during the orientation period to be educated about infection risk related to the performance of healthcare activities.

6.12.9. Counseling includes immunization status, medical treatment, health concerns in the kingdom or international travel.

6.12.10. Female employees who may be pregnant or who might become pregnant should know about the potential risk to the fetus due to work assignments as well as the preventive measures that will reduce those risks.

6.12.11. Work restrictions and management of job-related illness and exposure. (Refer to Appendix A)

6.12.12. If susceptible employees contract a serious infection that is potentially transmissible or are exposed to an illness that leads to a period during which infection may be spread, the hospital's responsibility is to prevent the spread of infections to patients and other personnel which may sometimes require that these persons be excluded from direct contact.

6.12.13. Encourage all employees to report their illness or exposure as soon as possible.

6.13. **All newly recruited employees will commence clinical service only after clearance fromd EHC physician**

6.13.1. Department head shall verify the clearance letter of all newly hired staff in their respective departments prior to scheduling any clinical responsibility; otherwise the department will be held accountable.

6.13.2. All employees shall have a repeated PPD testing on an annual basis if working in clinical areas with high risk of tuberculosis as designated by the infection prevention and control department.

6.13.3. All employees should contact EHC with screening result for immunization.

6.13.4. Immunize all hospital staff involved with patient care and invasive procedures (Immunization strongly recommended for healthcare workers (See APP-Appendix A).

6.13.5. Pregnancy within 3 months is contraindicated after use of live attenuated viral vaccine.

6.13.6. Pregnancy is contraindicated to MMR and Varicella vaccines.

6.13.7. Provide vaccinations, all medical evaluations and follow-up at no cost.

6.13.8. Immunize new healthcare workers based on the screening results.

6.13.9. Obtain a signed consent of refusal and that he/she understands the possible risk and the outcome involve in the refusal should a vaccine be refused.

6.13.10. Issue screening and immunization card for the healthcare worker for her/his personal references.

6.13.11. Report immediately adverse reactions of immunization to the employee health clinic.

6.13.12. Performed test for serological evidence to the source patient as part of post exposure prophylaxis.

6.13.13. Document the immunization procedure done and keep a record at the healthcare worker file maintained at the employee health clinic with confidentiality.

7.0 RELATED POLICY / CROSS REFERENCES:

7.1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014).

Chapter 103: Immunization in the healthcare worker. In APIC Text of infection control and epidemiology (4th ed.).
7.2. Hospital Infection Control Practices Advisory Committee (HICPAC). (November 2011). Immunization of healthcare workers: recommendations of the Advisory Committee on Immunization Practices (ACIP). 55:(RR-15).
7.3. The Pink Book: Course test Book (12th ed.), May 2012.

8.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR Sc. # 06-RN-8386	05 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director		07 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		10 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		17 MAR 2019

9.0 POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	IC17-1	April 1, 2012
Replaced by	APP-IC-015(2)	April 1, 2014
Deleted	APP-IC-015(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-015(4)	April 1, 2019

Routine immunizations recommended for healthcare personnel

Generic name	Dose, route and schedule	Indications	Major precautions and contraindications	Special considerations
Hepatitis B recombinant vaccine	1. Give IM 2. Give 3-dose series (1st dose immediately, 2nd dose in 1 month, 3rd dose 5 months after 2nd dose) 3. Obtain anti-HBs serological testing 1-2 months after 3rd dose	HCWs at risk of exposure to blood and body fluids with no previous evidence of immunity documented.	Precautions: Moderate or severe acute illness, with or without fever History of anaphylactic reaction to common baker's yeast Contraindication: Severe allergic reaction after a previous dose or to any vaccine component. Not contraindicated in pregnancy and may be administered to a pregnant woman who is eligible for it.	HCWs who have ongoing contact with blood and body fluids should be tested 1-2 months after completing the vaccination series to determine serologic response.
Influenza vaccine	One dose of trivalent influenza vaccine (TIV) annually.	All HCWs	Precautions: Moderate or severe acute illness, with or without fever. History of Guillain-Barre Syndrome 6 weeks after previous influenza vaccination. Contraindication Severe allergic reaction to previous dose or any vaccine component (e.g., egg)	No evidence of maternal or fetal risk when vaccine was given to pregnant women with underlying conditions that render them at high risk for serious influenza complications.
MMR vaccine	1. Give SC 2. Give 2 doses of MMR, 4 weeks apart.	For HCWs who have no serological evidence of immunity or prior vaccination HCWs should have a documentation of 2 doses of MMR.	Contraindication: Pregnancy, immunocompromised state* (including HIV-infected persons with severe immunosuppression). History of thrombocytopenic purpura. Recent immunoglobulin administration. Moderate or severe current illness with or without fever History of allergy or anaphylactic reaction to gelatin or neomycin. Pregnancy: Females should avoid getting pregnant for a minimum of 1 month after each shot.	1. MMR is the vaccine of choice if recipients are also likely to be susceptible to rubella and/or mumps 2. Persons vaccinated between 1963 and 1967 with a killed measles vaccine alone, killed vaccine followed by live vaccine, or a vaccine of unknown type should be revaccinated with 2 doses of the live measles vaccine.

Generic name	Primary booster dose schedule	Indications	Major precautions and contraindications	Special considerations
Quadrivalent Meningococcal conjugate vaccine tetravalent (A,C,Y,W) for HCWs ages 19-54 years **Quadrivalent meningococcal polysaccharide vaccine for HCW age ≥55 years**	One dose in a volume specified by the manufacturer.	HCWs performing or participating in Hajj Clinical and research microbiologist routinely exposed to isolates of Neisseria Meningitidis	Precautions: Moderate or severe acute illness, with or without fever. History of Guillian-Barre syndrome (if not high risk for meningococcal disease)	The safety of the vaccine has not been evaluated among women. It should not be administered during pregnancy unless risk for infection is high.
Tetanus, diphtheria (Td)	Td booster every 10 years following the completion of primary 3-dose series given IM during childhood.	All HCWs	Allergy or anaphylactic reaction to gelatin and neomycin or to any of the vaccine components following a prior dose	
Tetanus-Diphtheria Acellular Pertussis (Tdap)	One-time dose of Tdap to all HCWs younger than 65 years of age. After receipt of Tdap, give Td booster every 10 years	All HCWs regardless of age.	History of hypersensitivity to the vaccine or its components. History of Encephalopathy or Guillain-Barre Syndrome (GBS) less than 6 weeks after previous dose of tetanus containing toxoid. Precautions: Moderate or severe acute illness, with or without fever. The safety of the vaccine in pregnant women has not been determined.	
Hepatitis A vaccine	Two doses of the vaccine 6 to 12 months apart (HAVRIX®, AVAXIM®)	For adults who have no sign of immunity or no previously documented series of 2 shots.	History of anaphylactic hypersensitivity to alum (or for HAVRIX®, the preservative 2-phenoxyethanol). The safety of the vaccine in pregnant women has not been determined.	
Rabies vaccine	Refer to ICM-IV-07 to ICM-IV-08			

Other immunizations recommended for healthcare personnel in special circumstances (modified from ACIP recommendations)

Generic name	Primary booster dose schedule	Indications	Major precautions and contraindications	Special considerations
Varicella-Zoster live virus vaccine	Two 0.5-ml doses SC, 4 weeks apart	For persons who have NO serologic evidence of immunity Or No documentation of vaccination.	Contraindication Severe allergic reaction after a previous dose or to any vaccine component. Anaphylactic reaction to gelatin and neomycin or any of the vaccine components. Immunosuppression due to leukemia, lymphoma, generalized malignancy, immune deficiency or immunosuppressive therapy. Moderate to severe immunodeficiency resulting from HIV infection. **Pregnancy**. Precautions Recent (≤11 months) receipt of antibody containing blood product (i.e. immunoglobulin, whole blood or packed red blood cells) Immunoglobulin should not be given for 3 weeks following vaccination. (specific interval depends on the product) Moderate or severe acute illness, with or without fever.	

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICY NUMBER &VERSION
REPORTING NOTIFIABLE DISEASES TO THE MINISTRY OF HEALTH			APP-IC-016(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-016(3)	8
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL INFECTION CONTROL PRACTITIONERS, HEALTH INSPECTORS & HEALTHCARE WORKERS INVOLVE IN THE MANAGEMENT AND CARE OF PATIENTS WITH COMMUNICABLE DISEASES.	

1.0 PURPOSE:

1.1. To guide all healthcare workers in the correct method of reporting notifiable diseases to the Ministry of Health through the Infection Prevention and Control Department.

2.0 DEFINITION (S):

2.1. ***Notification***- is the process of informing health authorities about the occurrence of diseases of public health significance which are included in the MOH list of notifiable diseases. This is necessary for proper epidemiology protocols, monitoring, education and institution of appropriate local and national control measures.

3.0 POLICY STATEMENT(S):

3.1. All communicable diseases identified by infection control practitioners (ICP) and health inspectors (HI) are going to be reported to the Ministry of Health through the recommended channels.

3.2. Types of notification (according to the system for timely notification of communicable diseases to the Ministry of Health) include the following:

3.3. All the cases are registered in the HESN

3.3.1. Immediate notification:

This is for Class 1 infectious diseases that shall be notified immediately (within 24 hours) by fax or phone. Or hesn system

Class 1 cases include the following (Alphabetically arranged)

3.3.1.1. Anthrax

3.3.1.2. Avian influenza

3.3.1.3. BCGitis and other post vaccines adverse reactions

3.3.1.4. Cholera

3.3.1.5. Creutzfeldt –Jacob Disease

3.3.1.6. Dengue Fever

3.3.1.7. Diphtheria

3.3.1.8. H1N1 influenza

3.3.1.9. Hemorrhagic Fevers (Congo Crimean, Lassa, Ebola, West Nile, Relapsing Fever)

3.3.1.10. Measles

3.3.1.11. Meningococcal Meningitis

3.3.1.12. Mumps

3.3.1.13. Plague

3.3.1.14. Rift Valley Fever

3.3.1.15. Rubella

3.3.1.16. Severe Adult Respiratory Syndrome

3.3.1.17. Suspected Poliomyelitis for ages <15 years: (acute flaccid, paralysis, transverse myelitis, Guillain-Barre syndrome)

3.3.1.18. Tetanus Neonatorum

3.3.1.19. Whooping cough

3.3.1.20. Yellow fever

3.4. Diseases notified immediately shall also be included in the weekly report to the region as well as in the monthly report.

3.4.1. This is for class 2 infectious diseases that shall be notified **weekly**

3.4.1.1. Amoebiasis

3.4.1.2. Brucellosis

3.4.1.3. Chicken pox

3.4.1.4. Congenital Rubella

3.4.1.5. Echinococcosis

3.4.1.6. Hemolytic Uremic Syndrome

3.4.1.7. Hepatitis A

3.4.1.8. Hepatitis B

3.4.1.9. Hepatitis C

3.4.1.10. Hepatitis Unspecified (other types)

3.4.1.11. Malaria (within 3 days)

3.4.1.12. Meningitis (Pneumococcal, Hemophilus, Other types

3.4.1.13. Rabies

3.4.1.14. Salmonellosis

3.4.1.15. Shigellosis

3.4.1.16. Scabies (Inpatient wards& Dermatology clinic)

3.4.1.17. Tetanus (types other than neonatal tetanus)

3.4.1.18. Tuberculosis

3.4.1.19. Typhoid and Paratyphoid

3.4.2. **Monthly Reports (at end of each month)**

These include all infectious diseases reported to the regional health affairs which in turn shall be further reported to the deputy Minister for Preventive Medicine.

3.4.2.1. Rabies cases

3.4.2.2. Leishmania, Tuberculosis, Brucellosis cases

3.4.2.3. Post vaccines adverse reaction

3.4.2.4. Vaccines

3.4.3. Weekly zero reporting:

3.4.3.1. All acute flaccid paralysis cases in children less than 15 years.

3.4.3.2. All suspected measles, rubella and mumps cases.

3.4.3.3. H1N1, in case if epidemic is suspected.

3.4.3.4. Meningitis

3.4.3.5. MMR

3.5. Logbook to record notified infectious diseases is maintained at the Infection Prevention and Control Department. Information needed include the following: Name of patient, File number, Type of disease, Date of notification, Practitioner notification, and Health inspector receiving notification.

4.0 EQUIPMENT/MATERIAL/FORMS:

4.1. Attachment 1: Infectious Disease Forms for the specific disease

5.0 ROLES AND RESPONSIBILITIES:

5.1. Ward Nurse

5.1.1. Notifies infection prevention and control department whenever suspected, confirmed infectious cases and cases discovered infectious after admission are identified.

5.1.2. Informs ICD by filling-up an urgent infectious disease notification form and submit to the infection control nurse assigned in that particular area.

5.1.3. Initiates isolation precautions recommended.

5.1.4. Submits 2 samples of stool to Laboratory and fills form to be forwarded to Infection Control Department.

5.2. Infection Control Practitioners

5.2.1. Monitors compliance to infection control practices.

5.2.2. Provides the nurse in charge with the specific infectious disease form required for the identified disease which should be filled-up by the treating doctor.

5.2.3. Informs health inspector assigned in the area to follow-up completion and collection of the form.

5.2.4. Maintains a record of all identified cases by reviewing medical records of identified cases for demographic data and disease data.

5.2.5. Clarifies any follow-up information requested by the ministry of health with the appropriate physicians if necessary.

5.3. Treating Doctor

5.3.1. Fills-up and completes documentation of the infectious disease form.

5.3.2. Reporting of Human-immunodeficiency virus infection is the responsibility of adult and pediatric infectious disease consultant staff and forms shall be sent to ICD.

5.4. Health Inspectors

5.4.1. Follow-up completion of forms for the identified communicable disease notified and submits report to the assigned area (See procedure Table 1)

6.0. PROCEDURE:

6.1. Infectious diseases identified by infection control practitioners (ICP) and health inspectors (HI) through routine unit rounds or in response toward nurse's notification are going to be reported by ICP/HI to the Ministry of Health through fax to the following channels:

Table 1

Diseases	Notification area
1.Class I diseases: Immediately reporting within 24h 2.Weekly Zero reporting for Acute Flaccid Paralysis c in children less than 15 years, H1N1, Meningitis	Middle Health sector, Fax: 2726033And Regional Health Affairs primary health care section Fax: 4875043- 4876113
1.Class II diseases: reported weekly 2.Weekly Zero reporting for Measles, Mumps, Rubella 3.Monthly report	Middle Health sector, Fax: 2726033
Tuberculosis cases	Middle Health sector, Fax: Reports should be directed to the TB Program Coordinator – Riyadh Region: (Tel no. – 2414050 ext. 1249; Fax no. – 2410336).
Human-immunodeficiency virus	ICD (Ext. 424) by adult and pediatric consultant staff

6.2. Notifications are sent from regions and governments to infectious disease directorate

6.3. For cases of suspected, confirmed Poliomyelitis, Acute Flaccid Paralysis, Transverse Myelitis, Guillain-Barre Syndrome, Traumatic Neuritis, Hypokalemia, Osteomyelitis, Peripheral Neuritis, Myositis, Arthritis (all cases), Cord or nerve compression,

Meningitis (all cases) in any patient 15 years of age or younger, 2 samples of stool shall be sent by ward nurse to Laboratory and form must be filled up and forwarded to Infection Control Department. (first sample-upon admission: second sample after 48 hours).

Required laboratory tests will be requested and results will be submitted along with part two of the epidemiology form. Other requirements of the MOH for these cases reporting will be met through collaboration with the Virology Laboratory and the attending physician.

7.0. RELATED POLICY / CROSS REFERENCES:

7.1. Manual of Notification of Infectious Diseases, General Directorate for Parasitic and Infectious Diseases, 2007, Ministry of Health, Kingdom of Saudi Arabia.

7.2. Reporting Notifiable Diseases to the Ministry of Health Policy No.: APP-KSMC-177-(V3) King Saud Medical City (KSMC)/Infection Control

8.0.APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR Sc. # 06-RN-8386	05 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR	07 MAR 2019
	Mr. Khalid bandar Khalid Al Mutairi	Quality Director		10 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		17 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	IC21-1	April 1, 2012
Replaced by	APP-IC-016(2)	April 1, 2014
Deleted	APP-IC-016(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-016(4)	April 1, 2019

Ministry of Health

Afif General Hospital

Infection Control Department

COMMUNICABLE DISEASE REPORTING FORM

Hospital reporting Provider: **Pt Hospital No:**

Hospital:	**Department:**	**Clinic:**
Date of Reporting:	**Reported By:**	

***Pt Information*:** **Inpatient:** **Outpatient:**

Name:	**Age:**	**Sex: M: F:**
Nationality:	**File No:**	**Mobile No of Pt:**
Treating Doctor:	**Mobile No of Dr.**	**ID/iqama:**
		PHC:

For Inpatients

Date of Admission:	**Date of Discharge:**	
Ward:	**Room:**	**Hospital:**

Reportable communicable diseases:

1	Amoebic dysentery	
2	Anthrax	
3	Brucellosis	
4	Chicken pox	
5	Cholera	
6	Congenital Rubella	
7	Diphtheria	
8	Echinococcosis	
9	Germen Measles:	
10	Gonorrhea:	
11	Hemorrhagic fever Viral: SARS EBOLA: DENGUE FEVER: OTHERS:	
12	Hemolytic uremic syndrome/E.coli H/157	
13	HIV:	
14	Hepatitis: A: B: C: Others:	
15	Influenza: Bird Flu: H1N1: MERS CoV:	
16	Malaria: Falciparum: Vivax: Ovalle:	

Ministry of Health

Afif General Hospital

Infection Control Department

COMMUNICABLE DISEASE REPORTING FORM

17	**Measles:**			
18	**Meningitis: S. Gluc:**	**Latex Test:**	**Culture:**	**Polys:**
	csf Gluc:	**G. Stain:**	**Proteins:**	**WBCs:**
19	**Mumps:**			
20	**Neonatal Tetanus:**			
21	**Pertussis:**			
22	**Plague:**			
23	**Poisoning: Food:**		**Chemical including drugs:**	
24	**Puerperal Fever:**			
25	**Rabies**			
26	**Relapsing Fever:**			
27	**Rift fever:**			
28	**Salmonellosis**			
29	**Scabies:**			
30	**Scorpion Sting:**			
31	**Shigellosis:**			
32	**Syphilis:**			
33	**Tetanus:**			
34	**Tuberculosis: Extrapulmonary:**		**Pulmonary:**	**Others:**
35	**Typhoid & Paratyphoid:**	**Titer:**	**Culture:**	
36	**Typhus:**			

Instructions:

Please send this form, after completion to the infection control department immediately when an infection with communicable agent is discovered to suspect with update as they become available.

Reporting of the infectious disease event is mandated by the law and your cooperation is highly appreciated.

Process immediately; inform the IP&C department by phone, then handed over it to the infection control office for prompt action.

Update and follow up with the IP&C department as needed.

KINGDOM OF SAUDI ARABIA
MINISTRY OF HEALTH
GENERAL DIRECTORATE OF HEALTH AFFAIRS RIYADH
AFIF GENERAL HOSPITAL
INFECTION PREVENTION & CONTROL DEPARTMENT

Reporting Form, Suspected case of communicable Disease:

Record Type: ----------

Record Id: ----------

Record Name: ----------

Section-1

Health Region: ---------- Facility: ----------

Clinical Picture:

Date of Onset: ---------- Date of Hospitalization/Isolation: ----------

Symptoms/signs:

☐ Fever ☐ Redness ☐ Itchiness ☐ Rash ☐ Diarrhea

☐ Vomiting ☐ Abd-Cramps ☐ Seizure ☐ Cough ☐ Sputum

☐ Hemorrhage ☐ Sweating ☐ Others: ----------

Other (Specify): ----------

Cough Duration: ----------

Hemorrhage Place: ----------

Date of Onset of Fever: ---------- Date of Onset of Rash: ----------

Sample: ☐ Taken ☐ Not Taken

Date Blood Sample Sent: ---------- Type of Blood Sample: ----------

General Condition of the Pt: ☐ Stable ☐ Critical ☐ Died ☐ Other

Other(specify): ----------

Provisional Diagnosis:

Preventive Measures:

Name of the physician filling the report: ----------

Position: ---------- Place of work: ----------Mobile No: ----------

Date of filing the report: ---------- Signature/Stamp: ----------

Kingdom of Saudi Arabia
Ministry of Health
Public Health Agency
NTCPP

وزارة الصحة
Ministry of Health

البرنامج الوطني لمكافحة الدرن
National Tuberculosis Control & Prevention Program

Region/ District _____

Form :2

استمارة تبليغ وتقرير طبي عن حالة درن

(Notification & Medical report of TB case)

First Part: Personal Data الجزء الأول: البيانات الشخصية

Sex: _____ الجنس:	Age: _____ العمر:	Patient name: _____ إسم المريض:
Investigation ID in HESN رقم التقصي ببرنامج حصن	TB Code	Hosp. file no. رقم ملف المريض
المهنة: _____	الجنسية: _____	
Iqama No. for Non-Saudis رقم الإقامة لغير السعوديين	ID No. for Saudis رقم الحفيظة للسعوديين	
Phone No. رقم الهاتف:	Sponsor's name _____ إسم الكفيل:	
تاريخ الإصدار: / /	رقم الحفيظة للكفيل:	
Sponsor's address: _____ عنوان الكفيل:		
Patient's address: _____ عنوان سكن المريض:		
Work address: _____ عنوان عمل المريض :		
الجهة المحولة للمريض: _____		

Second Part : الجزء الثاني

أ- الفحص السريري Signs & symptoms

☐	date of onset	تاريخ بداية الأعراض
☐	Cough	1. كحة
☐	Period in weeks	• المدة بالأسبوع
☐	Sputum	2 . بلغم
☐	Haemoptysis	3 . نفث دموي
☐	Fever	4 . حرارة
☐	Night sweating	5 . تعرق ليلي
☐	Chest pain	6 . ألم بالصدر
☐	loss of weight	7 . نقص الوزن
☐	Loss of appetite	8 . فقدان الشهية
☐	other signs & symptoms	9 . أعراض وعلامات أخري

ب- السابق المرضي التاريخ Past Medical history

☐	Diabetes M.	1. البول السكري
☐	Lung diseases	2 . أمراض رئوية
☐	chronic renal failure	3 . فشل كلوي مزمن
☐	AIDS	4 . نقص المناعة المكتسب
☐	Immunosuppressive therapy	5 . مثبطات المناعة
☐	Treatment period in years	فترة العلاج بالسنوات
☐	Cancer	6 . سرطان
☐	Type	نوعه
☐	History of BCG vaccination	7. جي سي بي -بال التطعيم سابقة
☐	period in years	التاريخ بالسنوات
☐ لا	☐ نعم Scare	• الندبة
☐	Previous history of TB treatment	8 . علاج سابق للدرن
☐	Period in months	9 . مدة العلاج بالشهور

Form :2

ج-الفحوصات والتحاليل: Investigations					
TST	Date: / /	Induration in mm:			
Site:	Pathology ☐	Body Fluid ☐	Sputum ☐	نوع العينة: Sample type	
X-Ray	Normal ☐	Abnormal ☐	Not Done ☐		
Lab. Number:			Date: / /		
Microscopy	Positive ☐	Negative ☐	Not Done ☐		
Xpert-MTB	MTB not detected ☐	R-Sensitive ☐	R-Resistant ☐	Not Done ☐	
Culture	Positive ☐	Negative ☐	Not Done ☐	Pending ☐	
Histopathology	Positive ☐	Negative ☐	Not Done ☐	Pending ☐	
HIV Results	Positive ☐	Negative ☐	Not Done ☐		
CPT	Date Started: / /	ART:	Date Started: / /		

د-التصنيف حسب مكان الإصابة (Classification according to site):	
☐ رئوي (Pulmonary)	
☐ خارج الرئة (EPTB)	Site: of EPTB

هـ-تصنيف المريض patient classification:					
Others ☐	After Failure ☐	Transferred-in ☐	TAD ☐	Relapse	New ☐

و-النظام العلاجي (Treatment category):		
Second line ☐	CAT2 ☐	CAT1 ☐

1. أدخل المستشفى بتاريخ (Date of Hospitalization) بتاريخ: / /
2. بدأ العلاج بتاريخ (Date starting treatment) بتاريخ: / /
3. حول للعلاج إلى(Transferred to) بتاريخ: / /
4. أعطي موعد مع الأخصائي الاجتماعي بتاريخ بتاريخ: / /

Second Part: الجزء الثاني

إسم الطبيب المعالج	التوقيع	التاريخ

قراءة اختبار التيوبركلين تكتب بالمليمتر

KINGDOM OF SAUDI ARABIA
MINISTRY OF HEALTH
GENERAL DIRECTORATE OF HEALTH AFFAIRS RIYADH
AFIF GENERAL HOSPITAL
INFECTION PREVENTION & CONTROL DEPARTMENT

Reporting Form for A Case of Confirmed Scabies:

Record Type: ----------

Record Id: ----------

Record Name: ----------

Clinical Picture:

Date of Onset: ----------

Does The Pt Contact Similar Case: ☐ Yes ☐ No

Mention the Name of The Contact: ----------

The relationship: ----------

Place of Contact (Meeting): ----------

The Pt Address: ----------

Is the Pt Isolated: ☐ Yes ☐ No

Date of Isolation: ----------

Symptoms/Signs:

☐ Itching ☐ Skin Rash ☐ Skin Ulcers

Method of Diagnosis: ☐ Visual ☐ Skin Scraping

Does the Pt Given the Treatment? ☐ Yes ☐ No

Has the Contact Been Observed? ☐ Yes ☐ No

Mention the Number of Contacts: ----------

Have the Epidemiological Preventive Measures Been Taken Towards the Pt And Contact? ☐ Yes ☐ No

Name of the physician filling the report: ----------

Position: ----------

Place of work: ----------

Mobile No: ----------

Date of filing the report: ---------- Signature: ----------

المملكة العربية السعودية
وزارة الصحة
الوكالة المساعدة للطب الوقائي
مديرية الشئون الصحية بـ .....

وزارة الصحة
Ministry of Health

استمارة استقصاء وبائي لحالة سعال ديكي

بيانات التقصي الوبائي

تاريخ تلقي أول بلاغ: يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

تاريخ استيفاء الاستمارة: يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

أسم القائم باستيفاء الاستمارة: .....

وظيفته: .....

مكان عمله: .....

القطاع/المشرف الإقليمي: .....

المركز الصحي: .....

المنطقة: .....

بيانات المريض

اسم المريض: ..... أسم الأب: ..... أسم الجد: ..... لقب العائلة: .....

رقم البطاقة الشخصية/الإقامة/الجواز: ☐☐☐☐☐☐☐☐☐☐

تاريخ الميلاد: يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

العمر: ☐☐☐ نوع العمر: سنين ☐ شهور ☐ أسابيع ☐ أيام ☐

النوع: ذكر ☐ أنثى ☐

الجنسية: سعودي ☐ غير سعودي (حدد)..... ☐ مقيم (حدد)..... ☐

المهنة: طفل ☐ طالب ☐ موظف ☐ أخرى (حدد): ..... ☐

الحالة الاجتماعية: طفل ☐ أعزب ☐ متزوج ☐ مطلق ☐ أرمل ☐

رقم الهاتف: (المنزل) .....
(العمل) .....
(الجوال).....

العنوان (أسم الحي والشارع): ..... القرية: ..... المدينة: ..... المنطقة: .....

بيانات التنويم

تنويم المريض بمستشفى ☐

اسم المستشفى التي تم تنويم المريض فيها: .....

رقم ملف المريض: ☐☐☐☐☐☐☐☐☐☐

تاريخ بداية الأعراض: يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

تاريخ التشخيص المبدئي: يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

تاريخ التشخيص النهائي: يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

تاريخ تنويم الحالة بالمستشفى (العزل): يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

تاريخ خروج المريض من المستشفى: يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

حالة المريض عند الخروج: تحت العلاج ☐ شفاء ☐ تحويل ☐ وفاة ☐

البيانات السريرية

كحة ☐

تاريخ بداية الكحة: يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

حدوث كحة في صورة نوبات ☐

انتهاء الكحة بشهقة ☐

حدوث قيء عقب الكحة ☐

توقف التنفس ☐

تاريخ أخر مقابلة مع المريض: يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

مدة الكحة عند أخر مقابلة: يوم ☐☐

فحص الأشعة السينية X-ray للالتهاب الرئوي pneumonia للمريض:
إيجابي ☐
سلبي ☐
لم يعمل ☐

حدوث تشنجات seizures نتيجة للإصابة بالمرض:
نعم ☐
لا ☐
غير معروف ☐

حدوث إصابة حادة بالمخ نتيجة المرض acute encephalopathy:
نعم ☐
لا ☐
غير معروف ☐

العلاج

إعطاء المريض مضاد حيوي ☐
(حدد النوع): .....

تاريخ البدء في تناول أول مضاد حيوي: يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

مدته: يوم ☐☐

إعطاء المريض مضاد حيوي ثاني ☐
(حدد النوع): .....

تاريخ البدء في تناول ثاني مضاد حيوي: يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

مدته: يوم ☐☐

المملكة العربية السعودية
وزارة الصحة
الوكالة المساعدة للطب الوقائي
مديرية الشئون الصحية بـ .....

وزارة الصحة
Ministry of Health

استمارة استقصاء وبائي لحالة سعال ديكي

الفحوص المخبرية

☐	عمل مزرعة	تاريخ إجراء المزرعة	يوم ☐☐	شهر ☐☐	سنة ☐☐☐☐	☐ نتيجة المزرعة: ١= إيجابية ٢= سلبية ٣= غير محددة
☐	عمل PCR	تاريخ إجراء PCR	يوم ☐☐	شهر ☐☐	سنة ☐☐☐☐	☐ نتيجة PCR ١= إيجابية ٢= سلبية ٣= غير محددة
☐	فحص مصلي	تاريخ إجراء الفحص السيرولوجي:	يوم ☐☐	شهر ☐☐	سنة ☐☐☐☐	☐ نتيجة الفحص المصلي ١= إيجابية ٢= سلبية ٣= غير محددة

بيانات التحصين

تاريخ التحصين				نوع اللقاح				رقم التشغيلة
يوم ☐☐	شهر ☐☐	سنة ☐☐☐☐		الثلاثي البكتيري ☐	الرباعي ☐	الخماسي ☐		☐☐☐☐☐☐☐☐☐☐
يوم ☐☐	شهر ☐☐	سنة ☐☐☐☐		الثلاثي البكتيري ☐	الرباعي ☐	الخماسي ☐		☐☐☐☐☐☐☐☐☐☐
يوم ☐☐	شهر ☐☐	سنة ☐☐☐☐		الثلاثي البكتيري ☐	الرباعي ☐	الخماسي ☐		☐☐☐☐☐☐☐☐☐☐
يوم ☐☐	شهر ☐☐	سنة ☐☐☐☐		الثلاثي البكتيري ☐	الرباعي ☐	الخماسي ☐		☐☐☐☐☐☐☐☐☐☐
يوم ☐☐	شهر ☐☐	سنة ☐☐☐☐		الثلاثي البكتيري ☐	الرباعي ☐	الخماسي ☐		☐☐☐☐☐☐☐☐☐☐
يوم ☐☐	شهر ☐☐	سنة ☐☐☐☐		الثلاثي البكتيري ☐	الرباعي ☐	الخماسي ☐		☐☐☐☐☐☐☐☐☐☐

تاريخ أخر جرعة قبل المرض (عند عدم توفر بيانات التحصين التفصيلية): يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

☐ عدد الجرعات التي تحتوي على مستضدات السعال الديكي

التقصي الوبائي

☐ ارتباط الحالة بفاشية

☐ مكان انتقال العدوى: ١= منزل ٢= حضانة ٣=مدرسة ٤=عيادة أو منشأة صحية ٥= عمل ٦= أخرى (حدد) .....

الإجراءات الوقائية للمخالطين*

اسم المخالط	تاريخ الميلاد	علاقته بالمريض	المضاد الحيوي الوقائي				التطعيم السابق ضد السعال الديكي		تاريخ بداية الكحة (إن وجدت)
			اسم المضاد الحيوي	تاريخ البدء فيه	الجرعة	عدد أيام تناوله	عدد الجرعات	تاريخ آخر جرعة	
١.									
٢.									
٣.									
٤.									
٥.									
٦.									
٧.									
٨.									

* ملحوظة: عند الحاجة إلى إضافة مخالطين آخرين يتم استيفاء بياناتهم في صفحة أخرى مع مراعاة استكمال البيانات كما جاء في جدول المخالطين.

المملكة العربية السعودية
وزارة الصحة
الوكالة المساعدة للطب الوقائي
مديرية الشئون الصحية بـ .....

وزارة الصحة
Ministry of Health

استمارة استقصاء وبائي لحالة سعال ديكي

بيانات التقصي الوبائي

تاريخ تلقي أول بلاغ: يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

تاريخ استيفاء الاستمارة: يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

أسم القائم باستيفاء الاستمارة: .....

وظيفته: .....

مكان عمله: .....

القطاع/المشرف الإقليمي: .....

المركز الصحي: .....

المنطقة: .....

بيانات المريض

اسم المريض: ..... أسم الأب: ..... أسم الجد: ..... لقب العائلة: .....

رقم البطاقة الشخصية/الإقامة/الجواز: ☐☐☐☐☐☐☐☐☐☐

تاريخ الميلاد: يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

العمر: ☐☐☐ نوع العمر: سنين ☐ شهور ☐ أسابيع ☐ أيام ☐

النوع: ذكر ☐ أنثى ☐

الجنسية: سعودي ☐ غير سعودي (حدد)..... ☐ مقيم (حدد)..... ☐

المهنة: طفل ☐ طالب ☐ موظف ☐ أخرى (حدد): ..... ☐

الحالة الاجتماعية: طفل ☐ أعزب ☐ متزوج ☐ مطلق ☐ أرمل ☐

رقم الهاتف: (المنزل) .....
(العمل) .....
(الجوال) .....

العنوان (أسم الحي والشارع): ..... القرية: ..... المدينة: ..... المنطقة: .....

بيانات التنويم

☐ تنويم المريض بمستشفى

اسم المستشفى التي تم تنويم المريض فيها: .....

رقم ملف المريض: ☐☐☐☐☐☐☐☐☐☐

تاريخ بداية الأعراض: يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

تاريخ التشخيص المبدئي: يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

تاريخ التشخيص النهائي: يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

تاريخ تنويم الحالة بالمستشفى (العزل): يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

تاريخ خروج المريض من المستشفى: يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

حالة المريض عند الخروج: ☐ تحت العلاج ☐ شفاء ☐ تحويل ☐ وفاة

البيانات السريرية

☐ كحة

تاريخ بداية الكحة: يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

☐ حدوث كحة في صورة نوبات

☐ انتهاء الكحة بشهقة

☐ حدوث قيء عقب الكحة

☐ توقف التنفس

تاريخ أخر مقابلة مع المريض: يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

مدة الكحة عند أخر مقابلة: يوم ☐☐

فحص الأشعة السينية X-ray للالتهاب الرئوي pneumonia للمريض
☐ إيجابي
☐ سلبي
☐ لم يعمل

حدوث تشنجات seizures نتيجة للإصابة بالمرض
☐ نعم
☐ لا
☐ غير معروف

حدوث إصابة حادة بالمخ نتيجة المرض acute encephalopathy
☐ نعم
☐ لا
☐ غير معروف

العلاج

☐ إعطاء المريض مضاد حيوي (حدد النوع): .....

تاريخ البدء في تناول أول مضاد حيوي: يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

مدته: يوم ☐☐

☐ إعطاء المريض مضاد حيوي ثاني (حدد النوع): .....

تاريخ البدء في تناول ثاني مضاد حيوي: يوم ☐☐ شهر ☐☐ سنة ☐☐☐☐

مدته: يوم ☐☐

نموذج رقم ١

Polio Request Form:

المملكة العربية السعودية

وزارة الصحة

مديرية الشئون الصحية .....

الرقم : .....

التاريخ : .....

المشفوعات : .....

Date received in lab: \ \ \201

Polio Program Eradication برنامج استئصال شلل الأطفال

Laboratory Request Form For Specimen Analysis

استمارة طلب فحص عينات لفيروس شلل الأطفال

National Id Number:	رقم السجل المدني:
Medical Record Number:	رقم الملف الطبي:
EPI No. Lab No.	
Name of Patient \	اسم المريض/
Age\ Year Sex ☐ Male ☐ Female	العمر/ سنه الجنس ☐ ذكر ☐ أنثى
Nationality\	الجنسية /
Hospital \	المستشفى /
Health Care \	المركز الصحي /
City/Town/Village \	مدينة /قرية /
Clinical Diagnosis \ (1) (2) (3)	التشخيص السريري/ (1) (2) (3)
Physician Signature	توقيع الطبيب/
Date of Onset of Paralysis \ \ \201	تاريخ بداية الشلل / / 201
Date of Onset of Symptoms \ \ \201	تاريخ بداية الأعراض / / 201
Vaccination \	التحصين /
No. of OPV Doses Given \	عدد الجرعات من لقاح شلل الأطفال الفموي /
Date of Last OPV \ \ \201	تاريخ آخر جرعة من لقاح الشلل الفموي / / 201
Type of Specimen \ \ \201	نوع العينات /
Date Collected (1st sample) \ \ \201	تاريخ اخذ العينة الأولى / / 201
Date Collected (2nd sample) \ \ \201	تاريخ اخذ العينة الثانية / / 201
Date Sent \ \ \201	تاريخ إرسال العينات / / 201
	اسم منسق برنامج شلل الأطفال بالمنطقة /
	العنوان /
رقم الفاكس /	رقم التلفون /

ملحوظة:

في حالة ظهور حالة شلل أطفال يمكن أخطار المختبر على التلفون رقم 4350144، وفي حالة إيجابية أي عينة لفيروس شلل الأطفال أو أي فيروس معوي يتم إخطار منسق البرنامج تلفونيا أو بالفاكس مباشرة ودون أي تأخير مع إعطاء صورة من الفاكس لادارة الأمراض المعدية-فاكس 2124611

Note:

In case of polio you can call the laboratory .Tel: 4350144 & In case of isolation of Polio Virus or any enterovirus from any Specimen - immediately inform Polio Eradication coordinator in the relevant region- by FAX- A copy of the FAX sent should be given, to M O H, Department of infectious disease control-Fax No. 2124611

المملكة العربية السعودية
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(١٠٠/٢٧٥)
إدارة مكافحة الأمراض المعدية



نموذج إبلاغ فوري عن حالة اشتباه طفح جلدي مصحوب بحمى

عاجل بالإيميل (mpfriyadh@gmail.com) **أو بالفاكس** ويجب تعبئة جميع البيانات بدقة

المنشأة الصحية المبلغة: _____ **رقم الاتصال:** _____

تاريخ الإبلاغ بالحالة: ___/___/_____م **الأسبوع الوبائي رقم:** _____

الاسم الرباعي (على الأقل) _____

رقم إثبات الهوية | | | | | | | | | | | **أرفق** صورة منها

رقم سجل المريض في حصن | | | | | | | | | | **رقم الاستقصاء في حصن** | | | | | |

تاريخ الميلاد: ___/___/_____هـ **الموافق** ___/___/_____م **العمر:** _____ **سنة** _____ **شهر**

الجنس: ☐ **أنثى** ☐ **ذكر** **الجنسية:** _____

العنوان: _____

أرقام الاتصال بالمريض: _____ _____

مكان الدراسة أو العمل: _____

المركز الصحي الذي يغطي سكن المريض: _____

القطاع الصحي المسئول: _____ **رقم الاتصال:** _____

تاريخ بداية الحمّى: ___/___/_____م تاريخ بداية الطفح: ___/___/_____م

التشخيص المبدئي _____

منسق البرنامج بالمنشأة الصحية المبلغة: _____ **التوقيع:** _____

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استمارة التقصي الوبائي لحالة تطفح جلدي مع حمى

ترسل بالإيميل خلال ٤٨ ساعة من الإبلاغ (mpfriyadh@gmail.com) أو بالفاكس ويجب تعبئة جميع البيانات بدقة

تاريخ الإبلاغ بالحالة: ___/___/_____م **الأسبوع الوبائي رقم** _____

المعلومات الشخصية

الاسم الرباعي (على الأقل) _____

رقم إثبات الهوية | | | | | | | | | | | **أرفق** صورة منها

رقم سجل المريض في حصن | | | | | | **رقم الاستقصاء في حصن** | | | | |

تاريخ الميلاد: ___/___/_____ هـ **الموافق** ___/___/_____م **العمر:** _____ **سنة** _____ شهر

الجنس: ☐ أنثى ☐ ذكر الجنسية: _____

العنوان: _____

أرقام الاتصال بالمريض: _____ _____

مكان الدراسة أو العمل: _____

معلومات الجهة المبلغة والجهة الصحية المسئولة

تاريخ **الإبلاغ المنسق بالمنطقة:** ___/___/_____م تاريخ **التقصي:** ___/___/_____م

المنشأة الصحية المبلغة: _____

القطاع الصحي المسئول _____ **رقم الاتصال:** _____

المركز الصحي الذي يغطي سكن المريض: _____

القطاع الصحي المسئول _____ **رقم الاتصال:** _____

متوسط معدل التغطية بجرعة الحصبة **المفردة** المركز الصحي الذي يغطي سكن المريض **خلال الأشهر** الست **السابقة:** _____ %

متوسط معدل التغطية بلقاح **الثلاثي** الفيروسي خلال الأشهر الست **السابقة: الجرعة الأولى** _____ % الجرعة الثانية _____ %

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استمارة التقصي الوبائي لحالة طفح جلدي مع حمى

ترسل بالإيميل خلال ٤٨ ساعة من الإبلاغ (mpfriyadh@gmail.com) أو بالفاكس ويجب تعبئة جميع البيانات بدقة

الحالة التطعيمية للمريض

التطعيم بلقاح	لم يبلغ سن التطعيم بعد	طعّم جرعة واحدة	مطعّم جرعتين أو أكثر	غير مطعم	غير معروف
• الحصبة المفرد					
• الثلاثي الفيروسي					

معلومات آخر جرعة تم تلقيها من لقاحات الثلاثي الفيروسي أو الحصبة المفرد

تاريخ آخر جرعة: ___/___/_____م مكان آخر جرعة: _____ مصدر المعلومات من:

☐شهادة التطعيم (أرفق صورة الشهادة) ☐سجل المريض بالمركز الصحي (رقم السجل بالمركز)_____ ☐إفادة المريض أو ذويه

الأعراض والعلامات

الطفح جلدي: ☐نعم ☐لا تاريخ بداية الطفح: ___/___/_____م نوع الطفح: _____

الحمى: ☐نعم ☐لا تاريخ بداية الحمى: ___/___/_____م درجة الحرارة: _____

السعال: ☐نعم ☐لا التاريخ: ___/___/_____م التهاب الملتحمة: ☐نعم ☐لا التاريخ: ___/___/_____م

احقان الحلق: ☐نعم ☐لا زكام: ☐نعم ☐لا الم بالمفاصل: ☐نعم ☐لا تورم الغدد

الليمفاوية: ☐نعم ☐لا حبيبات كوبليك: ☐نعم ☐لا مضاعفات أخرى: ☐نعم ☐لا

أذكرها: _____ التاريخ: ___/___/_____م

مصدر العدوى

هل كان للمريض صلة بحالة حصبة مؤكدة خلال ٣ أسابيع من بداية الأعراض؟ ☐نعم ☐لا التاريخ ___/___/_____م

هل كان له صلة بحالة حصبة ألمانية مؤكدة خلال ٣ أسابيع من بداية الأعراض؟ ☐نعم ☐لا التاريخ ___/___/_____م

المكان: ☐المنزل ☐المدرسة ☐الجوار ☐مكان العمل ☐أخرى _____

هل سافر المريض خلال ٣ أسابيع من بداية الأعراض؟ ☐نعم ☐لا مكان السفر _____

تاريخ السفر ___/___/_____م تاريخ العودة ___/___/_____م

هل تم التعرف على مصدر العدوى: ☐نعم ☐لا اسم المصدر _____

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استمارة التقصي الوبائي لحالة تطاير حادي مع حمى

ترسل بالإيميل **خلال ٤٨ ساعة من الإبلاغ** (mpfriyadh@gmail.com) **أو بالفاكس** ويجب تعبئة جميع البيانات بدقة

الحالة التطعيمية للمخالطين المباشرين وغير المباشرين

العدد	طعم جرعة واحدة MMR	طعم جرعتين MMR	غير مطعم MMR	غير معروف	الإجمالي	عدد من هم دون عمر السنة	ملاحظات
مخالطين مباشرين							
مخالطين غير مباشرين							

الإجراءات الوقائية المتخذة

تم عزل المصاب ☐نعم ☐لا تم تطعيم المخالطين ☐نعم ☐لا تمت التوعية الصحية ☐نعم ☐لا

لم يتم اتخاذ أي إجراء ☐نعم ☐لا **السبب** _____

عينات المختبر (**ترسل** للمختبر المرجعي بمدينة الملك سعود الطبية) National Polio Lab in KSMC

نوع العينات: **م فقط** ☐نعم ☐لا **م ومسحة حلقية** ☐نعم ☐لا مسحة حلقية فقط ☐نعم ☐لا

تاريخ أخذ العينات ___/___/_____م. تاريخ **إرسال** العينات للمختبر الإقليمي ___/___/_____م.

تاريخ **وصول** العينات للمختبر الإقليمي ___/___/_____م تاريخ وصول النتيجة للمنطقة ___/___/_____م.

رقم العينة في **المختبر**: _____/_____ **حالة** العينة: ☐كافية ☐غير كافية

ملاحظات: _____

نتيجة عينة الدم **للحصبة**: ☐ايجابي ☐سلبي نتيجة عينة الدم للحصبة الألمانية: ☐ايجابي ☐سلبي

نتيجة عينة المسحة الحلقية: ☐ايجابي ☐سلبي **نوع** الفيروس المعزول _____

مشرف **البرنامج** بالمنشأة الصحية التي قامت بالتقصي:

الاسم: _____ التوقيع: _____

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نموذج طلب فحص الحصبة

ترسل صورة مع نموذج الإبلاغ بالإيميل(mpfriyadh@gmail.com) أو بالفاكس ويجب تعبئة جميع البيانات بدقة

Lab Request Form for Measles

Polio Lab. No. :	Date received in Polio Lab. / / 201 G
ID No.	رقم السجل المدني
Medical File No.	رقم الملف الطبي
Case No.	رقم الحالة
Name	اسم المريض
Sex	الجنس
Nationality	الجنسية
Address	العنوان
Dispensary	المحافظة
Region	المنطقة
Hospital	المستشفى
Birth Date	تاريخ الميلاد
Age	العمر
No. of MMR doses taken	عدد جرعات لقاح الثلاثي الفيروسي
Date of Last dose	تاريخ آخر جرعة
Type of Rash	نوع الطفح
Date	تاريخ الاصابة بالطفح
Fever	هل ارتفعت درجة الحرارة
Date	تاريخ ارتفاع درجة الحرارة
Provisional Diagnosis	التشخيص
Date of Blood Specimen Taken	تاريخ اخذ عينة الدم
Date of sending	تاريخ ارسال العينة للمختبر
Date of Swab Taken	تاريخ اخذ عينة زراعة فيروس الحصبة
Date of Blood Specimen Taken	تاريخ اخذ العينة
Date of sending	تاريخ ارسال العينة للمختبر
Name of Physician	اسم المنسق
Date	تاريخ

Remarks:

Blood collection:
Collect 5mL of blood in plain tube **(from day 4 – 28 after rash onset)**
Centrifuge the blood in local lab. At 3000 RPM for 10 min., then **separate the serum** in cryogenic vial the store in freezer at -20 degree until sending to the **National Polio Lab in KSMC**

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قائمة بأسماء المخالطين لحالة طفح جلدي مصحوب بحمى

ترسل صورة مع نموذج الإبلاغ بالإيميل(mpfriyadh@gmail.com) **أو بالفاكس** ويجب تعبئة جميع البيانات بدقة

لسم المريض / _____ تاريخ **الحملة** التطعيمية / _____

م	الاسم	مكان المخالطة	الحالة التطعيمية		هل تم التطعيم		رقم اتصل
			مطعم	لا	تم	لا	

المشرف الفني في المركز
الاسم: _____
التاريخ: _____
التوقيع : _____

مدير المركز الصحي
الاسم: _____
التاريخ: _____
التوقيع : _____

يرسل هذا النموذج على الأيميل المذكور مع استمارة التقصي الوبائي الخاصة بالمريض مع كافة شهادات التطعيم الخاصة بالمخالطين المباشرين وغير المباشرين

إدارة مكافحة الأمراض المعدية ت: ٠١١٤٩١٠٠٥٨ فاكس ٠١١٢٠٨٢٧٦٤ البريد الالكتروني mpfriyadh@gmail.com

المملكة العربية السعودية
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المديرية العامة للشئون الصحية بمنطقة الرياض
إدارة الصحة العامة
(١٠٠/٢٧٥)
إدارة مكافحة الأمراض المعدية

الرقم:
التاريخ:
المشفوعات:
الموضوع:

نموذج إبلاغ فوري عن حالة حصبة ألمانية ولادية مشتبهة

عاجل بالإيميل (mpfriyadh@gmail.com) **أو بالفاكس** ويجب تعبئة جميع البيانات بدقة

المنشأة الصحية المبلغة: _____

القطاع الصحي المسئول: _____ **رقم الاتصال:** _____

تاريخ الإبلاغ بالحالة: ___/___/___ **م** **الأسبوع الوبائي رقم:** _____

الاسم الرباعي (على الأقل) _____

رقم إثبات الهوية | | | | | | | | | | | **أرفق** صورة منها

رقم سجل المريض في حصن | | | | | | **رقم الاستقصاء في حصن** | | | | | |

تاريخ الميلاد: ___/___/_____ هـ **الموافق** ___/___/_____ **م** **مكان حدوث الولادة:** _____

الجنس: ☐ **أنثى** ☐ **ذكر** الجنسية: _____

العنوان: _____

أرقام الاتصال بالمريض: _____ _____

المركز الصحي الذي يغطي سكن المريض: _____

القطاع الصحي المسئول _____ **رقم الاتصال:** _____

الأعراض والعلامات:

أعراض المجموعة (أ)

أمراض قلب خلقية (Congenital Heart Diseases): ☐ نعم ☐ لا **ضعف السمع** (Hearing Impairment): ☐ نعم ☐ لا

اعتلال الشبكية **الصباغي** (Pigmentary Retinopathy): ☐ نعم ☐ لا **جلوكوما** (Congenital Glucoma): ☐ نعم ☐ لا

كاتاراكت (Cataract): ☐ نعم ☐ لا

أعراض المجموعة (ب)

صفح دموي (Purpura): ☐ نعم ☐ لا يرقان (Jaundice): ☐ نعم ☐ لا **ضمور المخ** (Microcephaly): ☐ نعم ☐ لا

التهاب سحايا مخية (Meningoencephalopathy): ☐ نعم ☐ لا **تضخم الطحال** (Splenomegaly): ☐ نعم ☐ لا

تخلف عقلي (Mental Retardation): ☐ نعم ☐ لا أمراض عظام شعاعية (Radiolucent Bone Diseases): ☐ نعم ☐ لا

أخرى (Others) ☐ نعم ☐ لا _____

منسق البرنامج بالمنشأة الصحية المبلغة:

الاسم: _____ التوقيع: _____

المملكة العربية السعودية
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إدارة الصحة العامة
(١٠٠/٢٧٥)
إدارة مكافحة الأمراض المعدية

الرقم:
التاريخ:
المشفوعات:
الموضوع:

استمارة التقصي الوبائي لحالة حصبة ألمانية ولادية مشتبهة

ترسل بالإيميل **خلال ٤٨ساعة من الإبلاغ** (mpfriyadh@gmail.com) **أو بالفاكس** ويجب تعبئة جميع البيانات بدقة

تاريخ الإبلاغ بالحالة: ___/___/_____م **الأسبوع الدولي رقم**_____

المعلومات الشخصية **للطفل والأم**

الاسم الرباعي للطفل (على الأقل) _____

رقم إثبات الهوية | | | | | | | | | | | أرفق صورة منها

رقم سجل المريض في حصن | | | | | | **رقم الاستقصاء في حصن** | | | | | |

تاريخ الميلاد: ___/___/_____ هـ **الموافق** ___/___/_____م **مكان حدوث الولادة:** _____

الجنس: ☐**أنثى** ☐**ذكر** الجنسية: _____

العنوان: _____

أرقام الاتصال بالمريض: _____ _____

الاسم الرباعي للأم (على الأقل) _____

رقم إثبات الهوية | | | | | | | | | | | **أرفق** صورة منها

رقم سجل الأم في حصن | | | | | | الجنسية: _____

تاريخ الميلاد: ___/___/_____ هـ **الموافق** ___/___/_____م **العمر:** _____ **سنة** _____ شهر

هل طعمت الأم بلقاح يحتوي على لقاح الحصبة الألمانية (MMR, MR, R): ☐**نعم** ☐**لا**

تاريخ الجرعات: **الأولى:** ___/___/_____م الثانية: ___/___/_____م **الثالثة:** ___/___/_____م

التاريخ المرضي والتطعيمي الأم أثناء فترة الحمل بالطفل المصاب

حدوث طفح جلدي: ☐**نعم** ☐**لا** **في حال الإجابة بنعم** : في أي أسبوع من أسابيع **الحمل** حدث **الطفح:** ____ **أسبوع**

حدوث حمى : ☐**نعم** ☐**لا** **في حال الإجابة بنعم** : في أي أسبوع من أسابيع **الحمل** حدثت **الحمى:** ____ **أسبوع**

تطعيمات أخذت : ☐**نعم** ☐**لا** **في حال الإجابة بنعم** : ما هو نوع اللقاح: _____

في أي أسبوع من أسابيع **الحمل** حدث التطعيم: ____ **أسبوع**

المملكة العربية السعودية
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الرقم:
التاريخ:
المشفوعات:
الموضوع:

استمارة التقصي الوبائي لحالة حصبة ألمانية ولادية مشتبهة

ترسل بالإيميل **خلال ٤٨ساعة من الإبلاغ** (mpfriyadh@gmail.com) **أو بالفاكس** ويجب تعبئة جميع البيانات بدقة

معلومات الجهة المبلغة والجهة الصحية المسئولة

تاريخ **الإبلاغ المرفق بالمرفقة:** ____/____/_____م تاريخ **التقصي:** ____/____/_____م

المنشأة الصحية المبلغة: _____

القطاع الصحي المسئول _____ **رقم الاتصال:** _____

المركز الصحي الذي يغطي سكن المريض: _____

القطاع الصحي المسئول _____ **رقم الاتصال:** _____

متوسط معدل التغطية بلقاح **الثلاثي** الفيروسي خلال الأشهر الست **السابقة: الجرعة الأولى** _____ % الجرعة الثانية _____ %

الأعراض والعلامات

أعراض المجموعة (أ)

أمراض قلب خلقية (Congenital Heart Diseases): ☐نعم ☐لا **ضعف السمع** (Hearing Impairment): ☐نعم ☐لا

اعتلال الشبكية الصباغي (Pigmentary Retinopathy): ☐نعم ☐لا **جلوكوما** (Congenital Glucoma): ☐نعم ☐لا

كاتاراكت (Cataract): ☐نعم ☐لا

أعراض المجموعة (ب)

طفح دموي (Purpura): ☐نعم ☐لا يرقان (Jaundice): ☐نعم ☐لا

ضمور المخ (Microcephaly): ☐نعم ☐لا التهاب سحايا مخية (Meningoencephalopathy): ☐نعم ☐لا

تضخم الطحال (Splenomegaly): ☐نعم ☐لا **تخلف عقلي** (Mental Retardation): ☐نعم ☐لا

أمراض عظام شعاعية (Radiolucent Bone Diseases): ☐نعم ☐لا

أخرى (Others): ☐نعم ☐لا _____

المملكة العربية السعودية
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الرقم:
التاريخ:
المشفوعات:
الموضوع:

استمارة التقصي الوبائي لحالة حصبة ألمانية ولادية مشتبهة

ترسل بالإيميل **خلال ٤٨ساعة من الإبلاغ** (mpfriyadh@gmail.com) **أو بالفاكس** ويجب تعبئة جميع البيانات بدقة

الفحوصات المخبرية للطفل المصاب

عينة الدم	تاريخ أخذها	تاريخ إرسالها للمختبر	نتيجتها
عند اكتشاف الحالة	ــــ/ــــ/ــــم	ــــ/ــــ/ــــم	☐سلبي ☐ايجابي ☐لا ينطبق
عند عمر ٦ شهور	ــــ/ــــ/ــــم	ــــ/ــــ/ــــم	☐سلبي ☐ايجابي ☐لا ينطبق
عند عمر ١٢ شهر	ــــ/ــــ/ــــم	ــــ/ــــ/ــــم	☐سلبي ☐ايجابي ☐لا ينطبق

التصنيف النهائي للحالة

حالة مؤكدة سريرياً: (لا توجد عينة ولكن يوجد علامتين على الأقل إحداهما من أعراض المجموعة (أ)
حالة مؤكدة مخبريا: (عينة الدم ايجابية **المضاد** IgM **للحصبة** الألمانية أوعينتين ايجابيتين من المضاد IgG **في عمر** ٦و١٢ شهر
حالة مرتبطة وبائياً: (**وجود علامة واحدة على الأقل من المجموعة** (أ) مع سلبية عينة الدم أو عدم الحصول عليها **مع** وجود تاريخ مرضي للأم بالحصبة الألمانية أثناء فترة الحمل).
ليست حالة: (غير الحالات المذكورة أعلاه).

مشرف البرنامج بالمنشأة الصحية التي قامت بالتقصي:

الاسم:_____ التوقيع:_____

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نموذج إبلاغ فوري عن حالة لشلل رخو

عاجل بالإيميل (mpfriyadh@gmail.com) **أو بالفاكس** ويجب تعبئة جميع البيانات بدقة

المنشأة الصحية المبلغة: _____ **رقم الاتصال:** _____

تاريخ الإبلاغ بالحالة: ___/___/_____م **الأسبوع الوبائي رقم:** _____

الاسم الرباعي (على الأقل) _____

رقم إثبات الهوية | | | | | | | | | | | **أرفق** صورة منها

رقم سجل المريض في حصن | | | | | | | | | | **رقم الاستقصاء في حصن** | | | | | |

تاريخ الميلاد: ___/___/_____هـ **الموافق** ___/___/_____م **العمر:** _____ **سنة** _____ شهر

الجنس: ☐ **أنثى** ☐ **ذكر** **الجنسية:** _____

العنوان: _____

أرقام الاتصال بالمريض: _____ _____

مكان الدراسة أو العمل: _____

المركز الصحي الذي يغطي سكن المريض: _____

القطاع الصحي المسئول: _____ **رقم الاتصال:** _____

تاريخ بداية الحمَّى: ___/___/_____م تاريخ بداية تورم الغدة النكافية: ___/___/_____م

التشخيص المبدئي _____

منسق البرنامج بالمنشأة الصحية المبلغة: _____ **التوقيع:** _____

المملكة العربية السعودية
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إدارة الصحة العامة
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إدارة مكافحة الأمراض المعدية

استمارة التقصي الوبائي لحالة لشلل رخو

ترسل بالإيميل خلال ٤٨ساعة من الإبلاغ (mpfriyadh@gmail.com) أو بالفاكس ويجب تعبئة جميع البيانات بدقة

تاريخ الإبلاغ بالحالة:___/___ /_____م **الأسبوع الوبائي رقم**_____

المعلومات الشخصية

الاسم الرباعي (على الأقل)_____

رقم إثبات الهوية | | | | | | | | | | | **أرفق** صورة منها

رقم سجل المريض في حصن | | | | | | | **رقم الاستقصاء في حصن** | | | | |

تاريخ الميلاد:___/___ /_____ هـ **الموافق** ___/___ /_____م **العمر:**_____ **سنة** _____ شهر

الجنس: ☐أنثى ☐ذكر الجنسية:_____

العنوان:_____

أرقام الاتصال بالمريض: _____ _____

مكان الدراسة أو العمل:_____

معلومات الجهة المبلغة والجهة الصحية المسئولة

تاريخ **الإبلاغ المنسق بالمنطقة:** ___/___ /_____م تاريخ **التقصي:**___/___ /_____م

المنشأة الصحية المبلغة:_____

القطاع الصحي المسئول_____ **رقم الاتصال:**_____

المركز الصحي الذي يغطي سكن المريض:_____

القطاع الصحي المسئول_____ **رقم الاتصال:**_____

متوسط معدل التغطية بلقاح **الثلاثي** الفيروسي خلال الأشهر الست **السابقة: الجرعة الأولى** _____ % الجرعة الثانية _____ %

المملكة العربية السعودية
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إدارة مكافحة الأمراض المعدية

استمارة التقصي الوبائي لحالة اشتباه نكاف

ترسل بالإيميل خلال ٤٨ساعة من الإبلاغ (mpfriyadh@gmail.com) أو بالفاكس ويجب تعبئة جميع البيانات بدقة

الحالة التطعيمية للمريض

التطعيم بلقاح الثلاثي الفيروسي	لم يبلغ سن التطعيم بعد	طعّم جرعة واحدة	مطعّم جرعتين أو أكثر	غير مطعم	غير معروف

معلومات آخر جرعة تم تلقيها من لقاحات الثلاثي الفيروسي أو الحصبة الفرد

تاريخ آخر جرعة: ___/___/_____م مكان آخر جرعة: _____ مصدر المعلومات من:

☐شهادة التطعيم (أرفق صورة الشهادة) ☐سجل المريض بالمركز الصحي (رقم السجل بالمركز)_____ ☐إفادة المريض أو ذويه

الأعراض والعلامات

تورم الغدة النكافية الحالي: ☐نعم ☐لا تاريخ بداية التورم: ___/___/_____م

تورم الغدة النكافية السابق: ☐نعم ☐لا عدد مرات التورم السابق: _____ تاريخ آخر التورم: ___/___/_____م

الحمى: ☐نعم ☐لا تاريخ بداية الحمى: ___/___/_____م درجة الحرارة: _____

التهاب الخصيتين: ☐نعم ☐لا التاريخ: ___/___/_____م

حمى مخية شوكية: ☐نعم ☐لا التاريخ: ___/___/_____م

صمم: ☐نعم ☐لا التاريخ: ___/___/_____م

مضاعفات أخرى: ☐نعم ☐لا

أذكرها: _____ التاريخ: ___/___/_____م

مصدر العدوى

هل كان له صلة بحالة نكاف مؤكدة خلال ٣ أسابيع من بداية الأعراض؟ ☐نعم ☐لا التاريخ ___/___/_____م

المكان: ☐المنزل ☐المدرسة ☐الجوار ☐مكان العمل ☐أخرى _____

هل سافر المريض خلال ٣ أسابيع قبل بداية الأعراض؟ ☐نعم ☐لا مكان السفر _____

تاريخ السفر ___/___/_____م تاريخ العودة ___/___/_____م

هل تم التعرف على مصدر العدوى: ☐نعم ☐لا اسم المصدر _____

المملكة العربية السعودية
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إدارة مكافحة الأمراض المعدية

استمارة التقصي الوبائي لحالة لشلل نكاف

ترسل بالإيميل **خلال ٤٨ساعة من الإبلاغ** (mpfriyadh@gmail.com) **أو بالفاكس** ويجب تعبئة جميع البيانات بدقة

الحالة التطعيمية للمخالطين المباشرين وغير المباشرين

العدد	**طعم جرعة واحدة MMR**	**طعم جرعتين MMR**	غير مطعم MMR	غير معروف	**الإجمالي**	عدد من هم **دون عمر السنة**	**ملاحظات**
مخالطين مباشرين							
مخالطين غير مباشرين							

الإجراءات الوقائية **المتخذة**

تم عزل المصاب ☐**نعم** ☐**لا** تم تطعيم المخالطين ☐**نعم** ☐**لا** تمت التوعية الصحية ☐**نعم** ☐**لا**

لم يتم اتخاذ أي إجراء ☐**نعم** ☐**لا السبب** _____

عينات المختبر (**ترسل** للمختبر المرجعي بمدينة الملك سعود الطبية) National Polio Lab in KSMC

تاريخ أخذ عينة الدم لفحص النكاف ___/___/_____م. تاريخ **إرسال** العينات للمختبر الإقليمي ___/___/_____م.

تاريخ **وصول** العينات للمختبر الإقليمي ___/___/_____م تاريخ وصول النتيجة للمنطقة ___/___/_____م.

رقم العينة في **المختبر**: _____/_____ **حالة** العينة: ☐كافية ☐غير كافية

ملاحظات: _____

نتيجة عينة الدم **للنكاف**: ☐ايجابي ☐**سلبي**

منسق البرنامج بالمنشأة الصحية التي قامت بالتقصي:

الاسم: _____ التوقيع: _____

المملكة العربية السعودية
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نموذج طلب فحص النكاف

ترسل صورة مع نموذج الإبلاغ بالإيميل(mpfriyadh@gmail.com) أو بالفاكس ويجب تعبئة جميع البيانات بدقة

Lab Request Form for Mumps

Polio Lab. No. :	**Date received in Polio Lab. / / 201 G**
ID No.	**رقم السجل المدني**
Medical File No.	**رقم الملف الطبي**
Case No.	**رقم الحالة**
Name	اسم المريض
Sex	**الجنس**
Nationality	الجنسية
Address	**العنوان**
Dispensary	**المحافظة**
Region	**المنطقة**
Hospital	**المستشفى**
Birth Date	تاريخ الميلاد
Age	**العمر**
No. of MMR doses taken	**عدد جرعات لقاح الثلاثي الفيروسي**
Date of Last dose	تاريخ آخر جرعة
Date of Mumps	تاريخ بداية تورم الغدة النكافية
Fever	هل ارتفعت درجة الحرارة
Date	تاريخ ارتفاع درجة الحرارة
Provisional Diagnosis	التشخيص
Date of Blood Specimen Taken	تاريخ اخذ عينة الدم
Date of sending	تاريخ ارسال العينة للمختبر
Date of sending	تاريخ ارسال العينة للمختبر
Name of Physician	**اسم المنسق**
Date	تاريخ

Remarks:

Blood collection:
Collect 5mL of blood in plain tube
Centrifuge the blood in local lab. At 3000 RPM for 10 min., then **separate the serum** in cryogenic vial the store in freezer at -20 degree until sending to the **National Polio Lab in KSMC**

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قائمة بأسماء المخالطين لحالة اشتباه نكاف

ترسل صورة مع نموذج الإبلاغ بالإيميل(mpfriyadh@gmail.com) **أو بالفاكس** ويجب تعبئة جميع البيانات بدقة

اسم المريض / _____ تاريخ **الحملة** التطعيمية / _____

م	الاسم	مكان المخالطة	الحالة التطعيمية		هل تم التطعيم		رقم اتصال
			مطعم	لا	تم	لا	

المشرف الفني في المركز
الاسم: _____
التاريخ: _____
التوقيع : _____

مدير المركز الصحي
الاسم: _____
التاريخ: _____
التوقيع : _____

يرسل هذا النموذج على الأيميل المذكور مع استمارة التقصي الوبائي الخاصة بالمريض مع كافة شهادات التطعيم الخاصة بالمخالطين المباشرين وغير المباشرين

إدارة مكافحة الأمراض المعدية ت: ٠١١٤٩١٠٠٥٨ فاكس ٠١١٢٠٨٢٧٦٤ البريد الالكتروني mpfriyadh@gmail.com

Section I: Infectious Diseases That Should Be Notified Immediately (within 24 H) By Fax or Phone

1. Cholera
2. Plague
3. Yellow Fever
4. Neonatal Tetanus
5. Diphtheria
6. Measles
7. Rubella
8. Congenital rubella
9. Mumps
10. Pertussis

11. Acute Flaccid Paralysis
- Suspected Poliomyelitis
- Guillian Baree
- Transverse Myelitis
- Other suspected Polio cases : meningitis, encephalitis, traumatic neuritis, hypokalaemia & hyptonia, osteomyelitis, peripheral, neurits, myositis, arthritis, cord or never compreeion.

For ages < 15 years

12. Meningococcal Meningitis
13. Haemorrhagic fevers:
- Dengue fever
- Rift valley fever
- Lassa
- Ebola
- Crimean-Congo
- Other haemorrhagic fevers

14. West Nile Virus Fever

15- SARS
16- Ántrax
17- Avian Flu
18-Any emerging disease
19-Any disease that appears in epidemic even if it is not included in section I & II.

■ All diseases of section I must be notified from health center and hospital to the health affairs directorate in the region on suspicion and to MOH when confirmed

Section II: Infectious Diseases That Should Be Notified Weekly to the Region and Then Monthly to the MOH

20. Chicken pox
21. Tetanus other types

22. Viral hepatitis
- Hepatitis A
- Hepatitis B
- Hepatitis C
- Hepatitis D
- Hepatitis E
- Unspecified Hepatitis (other types)

23. Typhoid and paratyphoid
24. Brucellosis
25. Amoebiasis
26. Salmonellosis
27. Shigellosis

28. Pneumoccal meningitis
29. Haemophilus meningitis
30. Other meningitis
31. Rabies
32. Hemolytic uremic syndrome
33. Echinococcosis

Note: Disease that are reported immediately should also be included in the weekly report to the Directorate and monthly report to the Ministry.

Outbreak: is and expected increase in the number of a specific disease in a specific area or population during a specific time period compared with the same time period in the preceding years; one case of certain diseases can be regarded as an outbreak if the disease is not previously recorded in the area.

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			
TITLE/DESCRIPTION			POLICY NUMBER &VERSION
CARE OF VULNERABLE PATIENTS – INFECTION CONTROL POLICY			APP-IC-017(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-017(3)	6
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To define the categories of patients that are considered vulnerable and who needs special care during their management.

1.2. To provide guidelines on infection prevention and control practices that prevents or minimizes exposure of vulnerable patient to infectious microorganisms.

2.0 DEFINITION (S):

2.1. ***Immunocompromised patient*** – any patient who is immunosuppressed due to his/her disease nature or the treatment he/she is receiving.

2.2. ***Vulnerable patient*** – patients needing special precautions during their management either due to nature of their disease or physiologic aspects related to their age group.

2.3. ***Comatose*** – a patient in prolonged state of unconsciousness.

2.4. ***Elderly patient*** – patient is at risk for or already requiring assistance to perform basic activities of daily living. Refers to adults 75 years and older and vulnerable due to declining health status.

2.5. ***Terminally ill*** – patients with terminal conditions that may lead inevitably but often gradually to death.

3.0 POLICY STATEMENT(S):

3.1. Standard precautions shall be applied in all patient care activities regardless of diagnosis or patient's infection status when caring for vulnerable patient.

3.2. Expanded precautions shall be used along with standard precaution based on the infectious status of the vulnerable patient.

3.3. Guidelines on infection prevention and control practices to prevent or minimize exposure of vulnerable patients to infectious microorganism shall be provided.

4.0 EQUIPMENT/MATERIAL/FORMS:

4.1. Hand hygiene facilities

4.2. Personal protective equipment

4.3. Sharp and waste containers

5.0 ROLES AND RESPONSIBILITIES:

5.1. All healthcare workers involve in the care and management of vulnerable patient shall be vigilant with strict compliance to the use of expanded precaution in addition to standard precautions to prevent transmission of infectious microorganism to vulnerable patients.

6.0 PROCEDURE:

6.1. Immunocompromised Patient:

6.1.1. Use expanded precautions in addition to standard precautions.

6.1.1.1. Perform hand hygiene before and after contact with the patient or patient's bedside equipment, before donning gloves prior to invasive procedures and upon leaving the patient's room.

6.1.1.2. Dispose medical waste in proper waste container (yellow bag) to prevent patient's surrounding contaminated of pathogenic microorganisms.

6.1.1.3. Dispose needles and sharps in sharp containers to prevent sharp injuries to both patient and healthcare workers.

6.1.2. Single room is advised, but if no single room is available, do not place a patient in a room with patients having active infections especially upper respiratory tract infections or patients colonized with MDROs.

6.1.3. Observe aseptic technique in performing invasive procedures.

6.1.4. Maintain good personal hygiene for the patient. Advice patients to have daily shower, wear clean clothes and change regularly.

6.1.5. Limit number of visitors and any visitor who is sick, feverish and exposed to chicken pox 14 days prior to the visit, executes rash with fever or have measles is not allowed.

6.1.6. Transport of patient

6.1.6.1. Limit movement and transport outside the room for essential purposes only.

6.1.6.2. If possible, use portable equipment to perform x-ray and other procedures which may be possible to perform inside the patient's room.

6.1.6.3. Minimize waiting time when diagnostic procedures are to be done outside the room by notifying the concerned area about the patient's status prior to the schedule.

6.1.6.4. Patient must wear mask when leaving the room.

6.1.7. Perform housekeeping practices in a manner to prevent dust generation (i.e. use damp cloth to clean walls and surfaces within the patient's environment.

6.1.8. Monitor food and drinking water. Restrict raw fruits and vegetables and prepare food using clean utensils and clean food preparation surface.

6.1.9. Plants and flowers are not permitted in patient's room.

6.2. Care of Comatose Patient:

6.2.1. Use expanded precaution in addition to standard precautions.

6.2.2. Maintain and monitor proper care and maintenance of invasive devices which all comatose patients are expected to have:

6.2.2.1. Prevent Ventilator-Associated Pneumonia (VAP)

a. Ensure thorough cleaning (high level disinfection) of ventilator circuits and tubing every after-patient use.
b. Carefully suction orally as well as endotracheal tubes.
c. Use barrier precaution according to anticipated exposure.
d. Use clean individual ambubag between patients.
e. Perform hand hygiene as indicated.

6.2.2.2. Prevent intravascular catheter infection.

a. Perform intravascular insertion aseptically.
b. Always check for signs and symptoms of phlebitis.

c. Change intravenous tubing every 72-96 hours.
d. Change dressing site when moistened with secretions.
e. Always observe hand hygiene before and after manipulation or when touching the catheter insertion site.

6.2.2.3. Prevent catheter-associated urinary tract infection.

a. Use and maintain closed urinary drainage system and spouts for emptying urine bag be ensured not to touch the floor.
b. Secure catheter to the thigh and hang below the level of the urethra.
c. Perform proper care of the perineum to remove skin colonization.
d. Maintain good hygiene.
e. Use appropriate PPE when performing healthcare activities.
f. Adhere to proper disposal of medical waste, needles and sharps.
g. Clear visiting arrangement for patients is maintained.

6.3. Care of Terminally Ill Patient

6.3.1. Apply standard precaution at all times along with expanded precautions based on the patient's infectious status in providing healthcare activities for terminally ill patient.

6.3.2. Hand hygiene measures to be emphasized and strictly observed.

6.3.3. Make patient comfortable with frequent change of position to relieve breathing discomfort. Put patient on his side with head slightly elevated with pillow.

6.3.4. If suctioning is done for ventilated patient, suction with reverence.

6.3.5. Educate family that is not wise to offer food and fluids in customary manner as this may regurgitate and may cause aspiration.

6.3.6. Sip of fluid with saturated gauze or ice chips may be given only if the patient is awake.

6.3.7. Apply emollients or petrolatum to prevent cracking of lips due to dry mouth.

6.4. Care of the Elderly Patient

6.4.1. Vigilant hand washing for every procedure to be done to the elderly patients to prevent colonization which can result to infection.

6.4.2. Use appropriate PPE in the performance of any healthcare activity for these patients.

6.4.3. Ensure high standard of regular cleaning by the domestic staff to remove dust that may harbor microorganisms.

6.4.4. Visitors with communicable disease are excluded in seeing the patient.

6.4.5. Maintain vigilant segregation of medical wastes (safe handling of healthcare waste) to prevent contamination of pathogenic microorganism around the vicinity of the patient care area.

6.4.6. Dispose needles and sharps into puncture resistant containers to prevent sharp injuries.

7.0 RELATED POLICY / CROSS REFERENCES:

7.1. APIC Text of Infection Control & Epidemiology, 3RD Edition, 2017 Intensive Care: Chapter 59.

7.2. Association for Professionals in Infection Control Epidemiology Inc., Chapter 34,35,36

7.3. CDC Guidelines for Isolation Precautions 2007. Prevention of Infectious Agents in Healthcare Settings pp. 38-39.

8.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	3 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR	5 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	3 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN	7 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		10 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		17 MAR 2019

9.0 POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	IC 25-1	April 1, 2012
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Deleted	APP-IC-017(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-01(4)	April 1, 2019

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
OUTBREAK INVESTIGATION			APP-IC-018(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-018(3)	13
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1 To provide guidelines for managing infectious diseases outbreaks in the hospital, including early identification; initiation of appropriate control/containment measures to prevent the spread; and assignment of roles and responsibilities.

2.0 DEFINITION (S):

2.1. **An outbreak** (cluster, epidemic) is an increase in the incidence of a particular infection or colonization over the expected rate or when an unusual microbe or adverse event is recognized.
2.2. **Cluste**r means an aggregation of cases in a given area over a particular period regardless of whether the number of cases is more than expected.
2.3. **Epidemic curve** is a graph in which the cases of a disease that occurred during an outbreak are plotted according to the time of onset of illness in each case.
2.4. **Case definition** is a standard set of criteria for deciding whether an individual should be classified as having the health condition of interest. A case definition includes clinical criteria and, particularly in the setting of an outbreak investigation, restrictions by time, place, and person.
2.5. **Hypothesis** is the best guess on the likely reservoir, sources, and mode of transmission of disease or infection.
2.6. **Line-listing** is a two-column list with variables in one column and the number and percentage of those who match that variable in the other column.
2.7. Infection Prevention & Control (IP&C) will monitor potential epidemics or influx of airborne infectious disease through routine surveillance of admission and syndrome surveillance provided by the Emergency Department (ED), and surveillance of microbiology results.
2.8. An Infectious Epidemic plan (IDEP) of a specific emerging pathogen will be developed by the IP&C as the need arises. The IDEP will be made available and accessible to all healthcare workers.

3.0 POLICY STATEMENT(S):

3.1. All Infection control practitioners must know the proper procedure to be followed during an outbreak investigation to identify the factors that contribute to the outbreak hence appropriate action must be taken to contain the epidemic in the shortest possible time

4.0 EQUIPMENT/MATERIAL/FORMS:

4.1. Computer

4.2. Data collection forms

5.0 ROLES AND RESPONSIBILITIES:

Role of Nursing Staff on Ward / Department.

a. Consult with nurse manager on duty.

b. lnform lnfection Control practitioner (lCP) if suspecting an outbreak.

c. lnform healthcare workers that have responsibility for patients on the ward.

d. Make sure infection control policy is being implemented.

e. Providing list of effected/suspected patients and/or staff on the ward and /or relevant their contact.

f. Assists in the collection of environmental samples.

Role of consultant /medical representative (role of treating physician):

g. Ensure that colonized/infected patients receive appropriate medical care and that contacts have been identified.

h. Communicate the reason for treatment and infection control precautions with patients/relatives.

Role of Infection Control Practitioner/Coordinator/Department:

i. Visit the ward/unit to review patient's clinical findings and laboratory data for identified or suspected cases.

j. lnterview the direct care providers (e.g. responsible nurse, watcher, etc.) to collect other information critical to verification of the outbreak.

k. lnform laboratory of potential infectious samples.

l. Upon confirmation of the diagnosis, determine if there is an increase in incidence rates as compared with endemic rates.

m. Determine if other patients or staff develop similar symptoms.

n. Compare surveillance data and laboratory records, discharge data, mortality statistics and other pertinent records.

o. Confirm whether there is an outbreak by reviewing the preliminary information on the number of potential cases, available lab results, severity of the problem, and demographic data of person(s), place and time. (line list).

p. lmmediate reporting within 24 hours, of a potential outbreak to:

- Hospital administration.
- Regional Directorate of lnfection Prevention and Control.
- General directorate of lnfection Prevention and Control of the Ministry of Health.

a) <u>Establish an Outbreak Control Team (OCf) with the following membership:</u>

- lnfection Control head
- Clinical Microbiologist.
- lnfection Control Practitioner.
- lnfectious disease consultant
- Occupational Health Physician.
- Head of the nursing department
- Head of concern department
- Medical Director.
- ln the case of suspected food poisoning environmental health officer (or ICP) must be involved.
- Supportive services and supplies
- Hospital Epidemiologist

Note: The OCT may require additional members according to the nature of the outbreak.

b. Present relevant information to OCT.

c. Make sure laboratory tests are undertaken appropriately and promptly.

d. Be available throughout the episode for consultation and advice.

e. Be responsible for making sure preliminary, interim and final reports are available.

f. Be responsible for withdrawal of specific control measures after the incident

The Role of Outbreak Control Team (OCT!:

a. Establish case definitions.

b. Establish the extent of the outbreak through active case finding.

c. Coordinate all arrangements for the investigation of the source and cause of the outbreak.

d. Coordinate the control measures to be implemented.

e. Make sure that all necessary steps are being taken for the continuing clinical care of patients during the outbreak.

f. ln case the outbreak is likely to lead to a significant increase in hospital admissions, hospital managers are made aware of the need to assess requirements for additional supplies and staff.

g. Assess the need for additional resources including administrative support, additional members if needed.

h. Provide clear instructions and/or information for the staff.

i. Meet as frequently as necessary in the circumstances of the particular outbreak and maintain an agreed detailed written record of all meetings.

j. Define the end of an outbreak and to state the lessons learned.

k. Prepare a preliminary report, ideally within 48 hours, interim reports if necessary and a final report.

l. implement screening policy during outbreak for patients, staff m. completing regular risk assessments throughout the duration and for an agreed period following the outbreak.

Role of Laboratory:

a. Provide full microbiology service for the investigation of outbreaks.

b. Provide a representative to be a member ofthe OCT as appropriate.

c. Participate as necessary in the inspection of premises and collection of samples.

d. Make sure that positive results are communicated to the Outbreak Control Team

e. Refer specimens to, and liaise with, the relevant reference laboratories, as appropriate.

Role of Environmental Health Office:

a. Where appropriate, arrange for environmental sampling to be taken to the laboratory.

b. Assessing food preparation and storage practices and will arrange for specimens of suspected food to be collected from kitchens and wards.

c. Assessing the status and condition of water distribution systems including sampling of supplies if necessary.

6.0 PROCEDURE:

6.1. Steps to be followed during outbreak investigation:

Investigations and Control of an Outbreak:

Disease outbreak is generally defined as "the occurrence of cases of disease in excess of what would normally be expected in a defined community, geographical area or season". ln hospital settings, outbreak should be suspected when Healthcare Associated infections (HAl's) "occur above the background rate or when unusual microbe or adverse event is recognized."

An outbreak in need of investigation and management can be defined in a number of ways: The occurrence of a disease in a population above normally expected rates at any given time or location. Two or more cases of a disease which are linked to the same exposure even if the number is not more than expected. A single case of a rare disease or one which has very important public health consequences (e.9. MERS-CoV, TB, Varicella) in need of urgent investigation and management. lf the endemic rate is unknown; and there are more than 2 cases of HAls with the same organisms, linked to the same exposure, at any given time or location within 3 days. lf there are more than 2 transferred patients to intensive Care Units (lCU) with the same hospital acquired infections at any given time. Those patients must be present at same room

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or the same department. lf there are one or more deaths attributed to same HAI at any given time and locations.

*Special considerations: infections occurring in infants that result from passage through the birth canal are considered HAls.

Outbreak Detection:

Outbreak management in healthcare facilities begin with the timely identification of an outbreak. Different sources could be utilized to identify an existence of an outbreak:

- Notifications and routine surveillance.
- Laboratory services notification.
- lnformal reports from hospital clinicians.
- The regional epidemiology un it.

Outbreak investigation:

For the purpose of teaching and explanation, outbreaks investigation is usually divided into several systematic steps. However, it is important to remember that outbreaks generally do not unfold on orderly or linear manner. Therefore, the steps described in the following discussion could possibly be not applicable in all settings and many steps may occur simultaneously or be repeated multiple times during the course of the investigation.

Generally, outbreak investigation could be divided into 11 major steps

1. Confirming presence of an outbreak
2. Alerting key partners about investigation
3. Performing a literature review
4. Establishing a preliminary case definition
5. Developing a methodology for case finding
6. Preparing an initial line list and epidemic curve
7. Form a tentative hypothesis

8. Institute initial control measures

9. Evaluate hypothesis

10. Monitor, Evaluate and Refine the control measures

11. Prepare and disseminate a final report

Common Healthcare Associated Infection (HAI) Outbreaks:

Bacterial	Outbreak definition
Multi-drug Resistant Organism (MDRO)	Defined as an increase in the number of facility-acquired MDRO cases above and beyond the endemic (baseline) level in a certain facility/unit during a specific time period, and may include an increase in cases of: • Methicillin-Resistant Staphylococcus Aureus (MRSA), • Vancomycin-Resistant Enterococcus (VRE), • Carbapenem Resistant Klebsiella Pneumonia or other Carbapenem-Resistant Enterobacteriaceae (CRE), • Multi-Drug Resistant Acinetobacter or Pseudomonas, or any other multi-drug resistant organisms
Clostridium difficile infection (CDI)	Outbreak is defined as three or more epidemiologically linked CDI cases within a period of less than 7 days.
Legionellosis	If the patient has been in the healthcare facility for the entire incubation period (10 days)
Foodborne disease outbreak	Is defined as two or more persons who experience a similar illness after ingestion of a common food. Please note two exceptions: one case of botulism or chemical poisoning constitutes an outbreak
Waterborne disease outbreak	Is defined as two or more persons who experience a similar illness after consumption or use of a common water source

Viral	Outbreak definition
lnfluenza or influenza like illness (lLl)	1. Three or more cases of influenza-like illness in a defined setting within a 3-day period (e.g., hospital unit, long term care facility, etc.), 2. One or more laboratory-confirmed cases of influenza within a 3-day period in a long-term care facility 3. An increased absenteeism in association with ill and/or laboratory confirmed influenza in healthcare workers
Chickenpox	3 or more cases in a long-term care facility within 1 incubation period.
Acute hepatitis B or C	ln a patient who had an invasive procedure during the incubation period and no other risk factors for hepatitis
Acute Hepatitis A	Two or more cases clustered in time (e.g., cases occurring within 42days of each other) and space (e.g., in one building) where transmission is suspected to have occurred in that setting (e.g. nosocomial transmission in a hospital) with at least one case culture or PCR-confirmed.
Norovirus	Norovirus outbreak is defined as onset of two or more epidemiologically linked cases within a three-day period, where a case is defined as someone with 2 or more episodes of vomiting or three or more episodes of diarrhea within 24 hours
Exotic infection	ln a transplant or transfusions recipient with no additional risk factors for the disease (e.9. Rabies, West Nile virus, etc.)

Fungal	Outbreak definition
Candida species	One case considered an outbreak
Post-procedure fungal infection	Post-procedure infection with an unusual organism (e.g. invasive fungal infection after an epidural procedure in an immunocompetent patient.)
Aspergillus species	One case considered an outbreak
candida Auris	One case considered an outbreak

Screening Guide:

organisms	Screening site	Indication screening for patient
CREs	a. Peri-anal swabs or rectal b. Skin sites, wound or urine (if urinary catheter is present)	Screen all patient who are: a) Known to be previously CRE positive for last 6 months or more. b) Roommates exposed to CRE-positive patient who shared the room for more than 48 hours. c) Consider point prevalence screening of a particular unit if more than one CRE patient is identified.
MRSA	a. Anterior nares b. Non intact skin areas e.g. tracheostomy, pressure sore or surgical wound.	Screen all patient who are: a) Admitted to the intensive care units (icu)

	c. Neonatal and pediatric patient awaiting liver or cardiac surgery should also both groin and axilla	b) Transferred from other hospital or have been treated in another hospital /clinic within the past six months. c) Undergoing liver or cardiac, orthopedic (including spine) surgery (preoperatively) d) Hemodialysis patient admitted for their first dialysis treatment and for placement of any type of vascular access (e.g AV-fistula, permanent catheter, graft or port access device) e) Known to be previously MRSA positive. f) Roommates of positive patient not on isolation precautions g) Screen exposed patient who shared a room with a known MRSA-positive patient for more than 48 hours
VRE	a. Peri -anal area b. Wound and catheter exit sites	ALL who are: a. Known to be previously VRE positive within the past 6 months or more. b. Roommates exposed to VRE-positive patient for more than 48 hours.

7.0 RELATED POLICY / CROSS REFERENCES:

7.1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Outbreak Investigations. In APIC Text of infection control and epidemiology (4th ed.).

7.2. Ministry of health guidelines for outbreak investigations.

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8.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Ms. Mirriam Licuanan	Infection Control Nurse	MIRRIAM F. LICUANAN RN 0281568 #1484454	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR S.C.# 06-RN-8386	05 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	07 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR	12 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Khalid B. AlMutairi QRM Director	17 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		14 MAR 2019

9.0 POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC27-1	April 1, 2012
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Deleted	APP-IC-018(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-018(4)	April 1, 2019

KINGDOM OF SAUDI ARABIA

MINISTRY OF HEALTH

GENERAL DIRECTORATE OF HEALTH AFFAIRS RIYADH

AFIF GENERAL HOSPITAL

Inter-facility Infection Control Transfer Form

This form must be filled out for transfer to accepting facility with information communicated prior to or with transfer
Please attach copies of latest culture reports with susceptibilities if available

Sending Healthcare Facility:

Pt NAME		AGE/SEX	FILE NO
NAME OF SENDING FACILITY		UNIT	PHONE NO
SENDING FACILITY CONTACTS	NAME	PHONE NO	Email:
DOCTOR/NURSE/ADM			
INFECTION PREVENTION			

- **Is the patient currently in isolation? □ NO □ YES**
- **Type of Isolation (check all that apply) □ Contact □ Droplet □ Airborne □ Other:**

Does patient currently have an infection, colonization OR a history of positive culture of a multidrug-resistant organism (MDRO) or other organism of epidemiological significance?	**Colonization or history** *Check if YES*	**Active infection on Treatment** ***Check if YES***
Methicillin-resistant Staphylococcus aureus (MRSA)	☐	☐
Vancomycin-resistant Enterococcus (VRE)	☐	☐
Clostridium difficile	☐	☐
Acinetobacter, multidrug-resistant*	☐	☐
E coli, Klebsiella, Proteus etc. w/Extended Spectrum B-Lactamase (ESBL)*	☐	☐
Carbapenemase resistant Enterobacteriaceae (CRE)*	☐	☐
Other	☐	☐

KINGDOM OF SAUDI ARABIA

MINISTRY OF HEALTH

GENERAL DIRECTORATE OF HEALTH AFFAIRS RIYADH

AFIF GENERAL HOSPITAL

- **Does the patient currently have any of the following?**

☐ COUGH

☐ DIARRHOEA

☐ VOMITING

☐ INCONTINENCE OF URINE/STOOL

☐ WOUND OR OPEN WOUND ACQUIRE DRESSSING

☐ DRAINAGE SOURCE

☐ CENTRAL LINE

☐ HD CATHETER

☐ URINARY CATHET

☐ SUPRAPUBIC CATHET

☐ GASTROSTOMY TUBE

☐ TRACHEASTOMY TUBE

- **Is the patient currently on antibiotics?** ☐ **NO** ☐ **YES**

ANTIBIOTIC NAME & DOSE	TREATMENT FOR	STARTING DATE	STOPING DATE

Name of Person Completing the Form: _____

Signature with stamp: **Date:** / /

If Information Communicated Prior To Transfer:

Name & Phone at Receiving Facility: _____

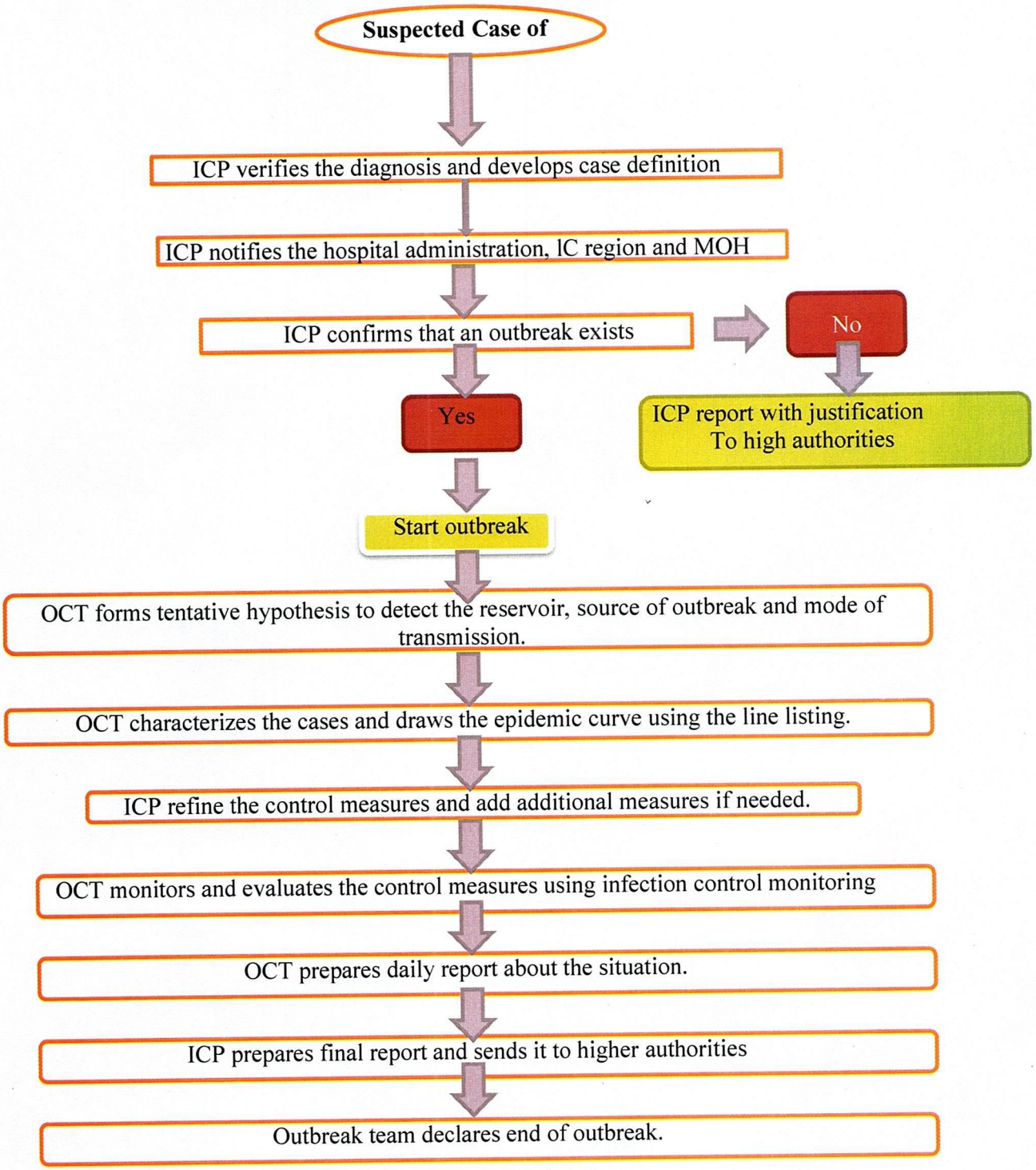
_____

OUTBREAK INVESTIGATION AND MANAGEMENT TEAM AFIF GENERAL HOSPITAL

NAME	POSITION
Dr Adil Moteb Bin Omairah	Hospital Director
Dr Ahmed Hasan	Medical Director
Dr Sher Agha	Head of IP&C
Ms. Lydia Liñan	Nursing Director
Dr Yasir Al Nimer	Microbiologist
Dr Mustafa Sharawe	Head of Medical
Ms. Mirriam Licuanan	Infection Practitioner
Mr. Maher Masoud Al Otaiby	Epidemiology Technician
Mr. Saad Muhammad Al Otaiby	House Keeping Head
Dr. Fahima Yousef	Patient safety officer
Mr. Abdul Aziz Awad Al Otaiby	Security Head

Note:
more members are to be added to the team will depend upon the type, size and location of the outbreak in the hospital.

Flow chart for the notification of outbreak



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OUTBREAK INVESTIGATION AND MANAGEMENT TEAM
AFIF GENERAL HOSPITAL

NAME	POSITION	SIGNATURE
Dr Adil Moteb Bin Omairah	Hospital Director	
Dr Ahmed Hasan	Medical Director	DR. AHMED HASAN MEDICAL DIRECTOR SC No: 13-R-M-0046094
Dr Sher Agha	Head of IP&C	DR. SHER AGHA HEAD OF INFECTION CONTROL
Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN Director of Nursing SC 06-R-N-8386
Dr Yasir Al Nimer	Microbiologist	DR. YASER ALNAMAR MICROBIOLOGY CONSULTANT
Dr Mustafa Sharawe	Head of Medical	DR. MOUSTAFA EL SHARAWY MED... SPECIALIST S.C.# ...-M-...
Ms. Mirriam Licuanan	Infection Practitioner	MIRRIAM F. LICUANAN RN 0281568 #1184454
Mr. Maher Masoud Al Otaiby	Epidemiology Technician	
Mr. Saad Muhammad Al Otaiby	House Keeping Head	
Dr. Fahima Yousef	Patient safety officer	DR. FAHIMA YOUSSEF PATIENT SAFETY OFFICER S.C.# 06-R-M-39559
Mr. Abdul Aziz Awad Al Otaiby	Security Head	

Dr. Adil Moteb Bin Omairah

Hospital Director

KINGDOM OF SAUDI ARABIA
MINISTRY OF HEALTH
GENERAL DIRECTORATE OF HEALTH AFFAIRS RIYADH
AFIF GENERAL HOSPITAL

CULTURE REPORT

Pt File No	Ward	DOA	Date of sample	Organism	MDRO		Sample Site	Device related		Result date
					Yes	No		Yes	No	

Review by:

Dr Sher Agha

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
MANAGEMENT OF INFECTIOUS WASTE			APP-IC-019(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-019(3)	9
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To provide safe and effective management of waste generated in each department.

1.2. To handle and dispose medical wastes in a manner that poses minimal potential hazard to the environment and public health.

1.3. To properly define, handle, transport and dispose of hazardous medical waste, and ensure safety of healthcare workers.

2.0 DEFINITION (S):

2.1. ***Hazardous medical waste***: waste generated from contaminated sources or potentially contaminated with infectious, chemical, or radioactive sources that poses potential health risk.

2.2. ***Human and animal body parts and organs***: Waste that contains human tissues: organs, fetal and placenta tissues, animal carcasses, blood, blood components, and body fluids.

2.3. ***Infectious waste***: Waste that contain biological agents that might spread any of the infectious diseases due to its load of bacteria, viruses, parasites, and fungi.

2.4. ***Chemical waste***: Waste that contains solid, liquid or gaseous chemicals resulting from diagnostic, therapeutic, laboratory activities or those used in cleaning and disinfecting or sterilizing procedures.

2.5. ***Sharps waste***: Waste that contains sharp items such as vaccine glass vials and needles, scalpels, lancets, razors, broken glass or any other sharp objects that has a potential to cut or punctures through the body.

2.6. ***Cytotoxic waste***: Waste that includes any residue of cytotoxic drug that remains following include treatment and any materials or equipment (decided to be considered waste) potentially contaminated with cytotoxic drugs.

3.0 POLICY STATEMENT(S):

4.1. Handling, transporting, and disposing of hazardous waste shall be properly defined to Ensure safety of healthcare workers, sanitation workers, and the general public In addition to cost reduction.

4.2. Disposal of sharp and hazardous medical waste must be handled with extreme care to minimize the injury and infection to the staff. Don't close the sharp container until ¾th full.

4.0 EQUIPMENT/MATERIAL/FORMS:

4.1. Personal Protective Equipment (utility gloves, mask)

4.2. Color coded bags

4.3. Carts for Regulated Medical Waste

4.4. Sharp container

5.0 ROLES AND RESPONSIBILITIES:

5.1. The department of infection prevention and control including the environmental Health and occupational safety section shall be responsible for implementing and monitoring this policy.

5.2. The department of infection prevention and control and the department of Operation audit shall follow-up and shall assist with staff education and monitoring In order to comply with this policy.

5.3. The support services department shall be responsible to deal with waste disposal Facility contactors and to supervise his compliance to the provisions of this guideline, also shall provide infection prevention and control with statistics showing the volume and types of hazardous waste; in order to study and plan for waste management Improvement.

COLOR CODING RECOMMENDED FOR WASTE BAGS AND CONTAINERS

Type of Waste	Color Case or container
Highly infectious waste such as culture plates with TB, Brucella, or viruses.	Yellow with clear phrase" highly infectious waste" (Arabic & English) with Bio-Hazard logo
Waste of human body parts and Organs	Red with a phrase "hazardous waste" (Arabic& English) with Bio-Hazard logo
Infectious waste	Yellow and with a phrase" hazardous waste" (Arabic & English) with Bio-Hazard logo"
Sharp waste	Yellow and with a phrase "sharp waste only" (Arabic & English) with Bio-Hazard logo
Bulk Cytotoxic waste liquid (more than 5 cc.	Yellow container with a phrase "Cytotoxic Waste" " " with Cytotoxic hazardنفاياتسامةللخلايا logo and Biohazard logo.
Trace Cytotoxic waste like items contaminated with trace amount of Cytotoxic empty IV bags liquid such as gloves,	نفاياتسامةللخلاياYellow bags with a phrase "Cytotoxic Waste" "with Cytotoxic hazard logo and Biohazard logo. "
Chemicals and pharmaceutical drug	Yellow and with Phrase Chemical Waste (Arabic & English) with "Bio-Hazard" logo waste
Radioactive waste	Hermetically sealed containers with an International logo of radiation Hazard
Non-hazardous medical waste	Black

INFECTIOUS/HAZARDOUS WASTE MANAGEMENT PLAN

Waste Category	*Examples*	*Red Bag*	*Yellow Bag*	*Yellow Container*	*Black bag*	*Autoclave bags*
Highly infectious waste such as culture plates with TB, Brucella Viruses, and Fungi (Microbiology)	Stocks and cultures of infectious agents		X			X3
Anatomical waste	Tissues, organs, other body parts, Placenta specimens of body fluids and their containers (stored in lab for burial)	X				
Blood / blood products/body fluids: **All clinical areas:** **• <20 ml volumes** **• >20 ml volumes**	Blood containers, IV tubing without needles, Suction canisters, pleurovacs, evacuated containers hemovacs, etc.		X		X	
Items contaminated with Blood: • If saturated and / or dripping • Not saturated and / or dried	Paper towel, gauze, disposable objects, gloves, etc.		X		X	

Cytotoxic Waste	Visible amount of liquid cytotoxic and/or sharps Trace4 cytotoxic		X	X		
Sharps	Contaminated needles, syringes, scalpel blades, razors, pasteur pipettes, tubes and broken glass			X		
Contaminated animal carcasses, body parts, and bedding	Contaminated animal carcasses, body parts, and bedding of animals that were intentionally exposed to pathogens		X			X3
Other hospital waste					X	

1 Yellow bags (70 -micron thickness, leak-proof, labeled Cytotoxic and/or Biohazard as per ICM-IX-02 Management of Infectious Waste).
2 Yellow containers must be heavy-duty, leak-proof, and puncture-proof. Containers must be labeled as Biohazard or Cytotoxic separately as per ICM.
3 If steam sterilization is not used, place in yellow bag for incineration.
4 Waste materials contaminated with any visible liquid are classified as bulk chemical waste, including contaminated sharps. and must be incinerated at ≥1200°C.
5 Waste materials contaminated with traces of chemotherapy agents (e.g., empty vials, IV tubing, gowns, gloves).
Note: Radioactive wastes should be placed in hermetically sealed containers with an international logo of Radiation Hazard.

6.0 PROCEDURE:

6.1. Segregation and disposal of hazardous medical waste inside the health care facility: Each hazardous medical waste generator (e.g. Hospital) segregate hazardous from Non-hazardous waste at the generation site. The waste generator holds the responsibility of segregating and collecting waste in containers specially made for this purpose within the health care facility and its department's as follows:

6.1.1. Collect infectious waste in yellow-colored plastic bags bearing the phrase "hazardous medical waste" along with the bio-hazard logo.

6.1.2. Dispose sharps in yellow, thick, leak proof and puncture proof container bearing the phrase "Hazard – sharp items" (in Arabic and English) and the bio- hazard logo.

6.1.3. Collect liquid chemical waste inside yellow thick hermetically sealed, leak proof containers, bearing the phrase "chemical waste" in (Arabic and English);meanwhile, solid chemicals such as powder materials' waste shall be collected in yellow plastic bags bearing the phrase Chemical waste- medications" in (Arabic and English) as well as the bio-hazard logo.

6.1.4. Collect radioactive material waste in specially designed containers made of lead or leaded- shield, sealed and bearing the international logo of radiation hazard.

6.1.5. Placed body parts and organs in red plastic bags bearing the phrase bio hazard in Arabic and English and the bio-hazard logo to be kept at the mortuary until they are dealt with in accordance to Islamic sharia (law).

6.1.6. Collect highly infectious waste (highly infectious microbial cultures) such as viruses, TB, Brucella, in plastic bags suitable for pretreatment with autoclave within the generation site in the generating department, these are yellow bags bearing the phrase" highly infectious waste" along with bio-hazard logo, then after this treatment these are to be placed in yellow bags bearing the phrase "hazardous medical waste" along with bio- hazard logo.

6.1.7. Collect cytotoxic waste in yellow leak proof containers bearing the phrase "trace cytotoxic waste".

6.2. Collection/transportation within the health care facility

6.2.1. Collection and transport of bags/containers of hazardous medical waste require use of special trolleys and well-trained laborers in order to guarantee high degree of safety during collection/transport within the health care facility to prevent any leak or spill out of the bags/containers.

6.2.2. Health care workers who transport such wastes including expired hazardous drugs or any other kinds of waste must be trained on such task and on spill management.

6.2.3. Prior to collection and transport of bags/containers of hazardous medical waste, these shall be fully-sealed and locked and it shall be made sure that data-stickers that reveals their contents are available, as well as the presence of proper hazard identification and its related labeling including the bio-hazard logo.

6.2.4. Do not overfill waste bags and containers with not more than 3/4 their capacity and not be pressurized or compacted. Waste bags shall not be held close to the collector body or to be held from their bottom. Bags shall only be held at the top when handling.

6.2.5. Transport hazardous medical waste within the health care facility in covered specially designed trolleys that guarantee efficiency upon loading and unloading, leak-proof and are easily cleaned/disinfected.

6.2.6. Collect hazardous medical waste from rooms of patients with infectious diseases and isolation wards under direct supervision of the person in charge of medical waste management in the health care facility.

6.2.7. Segregated and collected fetal and placental organs in red bags and stored in a special refrigerator in obstetric department until they are properly disposed in accordance to Islamic sharia (law).

6.2.8. Cleaned, washed, and disinfected trolleys for collecting and carrying hazardous medical waste, on a daily basis by trained labor under the supervision of the person responsible for hazardous medical waste in the health care facility.

6.2.9. In case hazardous medical waste spill or leak out of plastic bags, containers, or trolleys, such waste be considered extremely hazardous and requires an immediate action. Cleaning, disinfection, and safety measures must be taken when and where leakage is identified.

6.2.10. Non-hazardous medical waste shall be collected in black plastic bags. These shall be treated separately and must be segregated from hazardous medical waste in all stages (packing, collection, transporting, storage inside the facility), until it is transported to the final disposal places in the landfill (e.g. Municipal landfill).

6.2.11. Workers involve in disposal of blood or body substances (including emptying of urine and other fluid collection bags) must do the following:

6.2.11.1. Wear appropriate personal protective equipment.

6.2.11.2. Pour liquid waste slowly down a drain connected to a sanitary sewer system and flush immediately after disposal.

6.2.11.3. Minimize splashing or contamination to mucosa or skin.

6.2.11.4. Ensure that disposable products containing liquids (such as disposable suction liners) are sealed, not emptied, before disposal into clinical waste bags and containers.

6.2.12. Medical wastes are not to be emptied in open carts because this increases the risk of injury to staff, patients, and visitors, and may lead to spills and environmental contamination.

6.2.13. Avoid overfilling carts for transportation of waste.

6.2.14. Wash hands after handling waste.

6.3. Records tracking:

6.3.1. A signature from the generating facility is required on each tracking record at the time of pick up.

6.3.2. Environmental services is responsible for maintaining documents pertaining to tracking records, shipping documents and certificate of treatment of all medical waste removed from the facility.

6.4. Storage:

6.4.1. Biohazard wastes are stored in a locked and secured holding area located on the facility property. Warning signs are posted in English and Arabic ***"CAUTION"! BIOHAZARDOUS WASTE STORAGE AREA - UNAUTHORIZED PERSONS KEEP OUT".***

6.5. To minimize workers from exposure, the following measures must be followed:

6.5.1. Wear heavy utility gloves and eye protection during cleaning of the containers.

6.5.2. Close and seal the container before removal from the point of generation waste to prevent spillage and risk of exposure during handling and movement of containers.

6.5.3. Remove or replace collection container frequently enough to prevent overfilling

6.5.4. Maintain container integrity for the waste handlers during handling and segregation by closing container before pick-up to prevent spillage or protrusion of contents during, handling, storage and transport.

6.5.5. Torn, damaged, or leaking containers shall not be over packed (i.e., place within a second container).

6.5.6. Never open nor transfer waste bags between containers because of the risk of exposure

6.6. Train all personnel involved in the generation, handling of infectious material:

6.6.1. All new personnel.

6.6.2. Basic contents of the training program include information on the following:

6.6.2.1. Hazards of healthcare waste.

6.6.2.2. Safety procedures for dealing with sharps and medical waste.

6.6.2.3. Action and notification to supervisors in case of accidents.

6.6.2.4. Proper segregation, containment, handling, transporting, and storing of Waste

7.0 RELATED POLICY / CROSS REFERENCES:

7.1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 113: Waste Management. In APIC Text of infection control and epidemiology (4th ed.).

7.2. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 107: Environmental services. In APIC Text of infection control and epidemiology (4th ed.).

8.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR Sc. # 06-RN-8386	05 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SCFHS No: 13-R-M-0046094	07 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Mutairi	10 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		17 MAR 2019

9.0 POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	IC28-1	April 1, 2012
Replaced by	APP-IC-019(2)	April 1, 2014
Deleted	APP-IC-019(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-019(4)	April 1, 2019

تصنيف نفايات الرعاية الصحية
Classification of Healthcare

نفايات الرعاية الصحية الخطرة
Health care Hazardous Waste

- النفايات المعدية — Infectious Waste
- نفايات الأجزاء وبقايا أعضاء الجسم — Pathology Waste
- نفايات الأدوات الحادة — Bio Medical Sharps
- النفايات الصيدلانية — Pharmaceutical Waste
- نفايات عبوات الغاز المضغوطة — Compressed Gas Containers waste
- نفايات المواد المشعة — Radioactive Waste
- النفايات الكيماوية — Chemical Waste
- نفايات المواد السامة للجينات والخلايا — Toxic waste Material of Genes & Cells

نفايات الرعاية الصحية الغير خطرة
Health Care Non-hazardous Waste

في حال اختلطت النفايات الطبية الغير خطرة ببعض النفايات الطبية الخطرة تعامل معاملة النفايات الطبية الخطرة

In case of mixture between the hazardous and Non-hazardous, Waste is Treated as Hazardous Waste

فصل النفايات المعدية Separation of Infectious Waste



طريقة ربط الأكياس بإحكام

Method of sealing bags



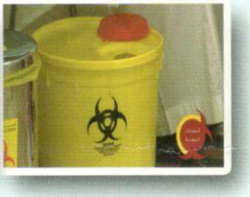
لتوحيد اجراءات التعامل مع هذه النفايات من الجهات المعنية

To standardize the procedures of dealing with these waste for concerned parties



السلة الخاصة بالنفايات الغير خطرة ويوضع بها أكياس سوداء

Basket for non-hazardous waste with black bags



توضع سلتين في كل منطقة بها نفايات معدية

two Baskets in Each Area With Infectious Waste



غرفة التخزين المؤقتة

Temporary Storage Room



يتم نقل النفايات إلى غرفة التخزين المؤقتة

Waste is Transferred to Temporary Storage Room



السلة الخاصة بالنفايات الخطرة ويوضع بها الأكياس الصفراء مطبوع عليها شعار الخطر الحيوي

Basket especial for Hazardous waste With yellow Bags Holding The logo Bio-hazard



الطريقة الصحيحة لحمل الأكياس

The Right way to Hold The Bags

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ISO 14001

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
CLEANING AND DISINFECTION OF HEALTH CARE SETTING			APP-IC-020(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-020(3)	4
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To provide guidelines for cleaning, disinfection and sterilization in order to reduce the risk of nosocomial infections and adverse outcomes.

1.2. To prevent tissue damage related to the improper use of disinfectant products.

1.3. To reduce occupational exposure and risk of infection to staff, especially transport personnel and technicians servicing medical equipment.

1.4. To prevent damage to inanimate surfaces and maintain the functional integrity of medical devices through the proper selection and use of disinfectant products and sterilization methods.

2.0 DEFINITION (S):

2.1. ***Sterilization*** a process that destroys or eliminates all forms of microbial life and is carried out in health-care facilities by physical or chemical methods.

2.2. ***Disinfection*** a process that eliminates many or all pathogenic microorganisms except bacterial spores on inanimate objects.

2.3. ***Critical items-***are items that enter sterile tissue or the vascular system and present a high risk of infection if contaminated need to be sterile.

2.4. ***Semi critical items-*** items come in contact with mucous membranes or non-intact skin, but ordinarily do not penetrate them (e. g., oral thermometers, and respiratory therapy equipments, laryngoscopes, endoscopes, hydrotherapy tanks used for patients with non-intact skin). They require high level disinfection or intermediate level disinfection.

2.5. ***Non critical items*** -These items come in contact with intact skin but with mucous membranes (bed pan, urinals, basins, blood pressure cuffs, linens, bedside tablets, some food utensils, and

patient furniture), and present a low risk of infection. They need cleaning and drying or low-level disinfection.

3.0 POLICY STATEMENT(S):

3.1. It is the policy of Infection Control Department to standardize the cleaning and disinfection process within Afif General Hospital.

3.2. Disinfection and sterilization of reusable equipment shall be done by the Central Sterilization and Supply Department.

4.0 EQUIPMENT/MATERIAL/FORMS:

4.1. PPE/ utility Gloves/gown, mask

4.2. Disinfectant solution

4.3. Packaging material-tapes/plastic wrapper

5.0 ROLES AND RESPONSIBILITIES:

5.1. It is the responsibility of the Infection Control Department and the Total Quality Management Department to review and monitor the implementation of this policy for effective compliance.

6.0 PROCEDURE:

6.1. Send articles whose surfaces become cracked, torn, rusted or no longer smooth and are not easily disinfected, for repair/repainting or discarded.

6.2. Decontaminate used equipment, requiring repair, before being sent to biomedical engineering or before biomedical technicians.

6.3. Use of microwave oven, glass bead sterilizers, and boiling for sterilization is not allowed.

6.4. Ascertain the appropriate level of reprocessing required and the method recommended from the manufacturer and verify as acceptable from infection control when purchasing equipment.

6.5. Ensure that new disinfectant and antiseptic products presented to and approved by a multidisciplinary committee (Infection Control and Pharmacy) to ensure that the product meets accepted standards, taking into consideration economic and safety factors.

6.6. The Infection Control Committee must approve new indications for existing antiseptic products.

6.7. Instruments or devices that require Special Processing:

6.7.1. Sterilize laparoscopes, arthroscopes, and other scopes that enter normally sterile tissue before each use; if this is not feasible, high-level disinfection is to be performed.

6.7.2. Endoscopes: Need High level Of Disinfection.

6.7.3. Probes such as rectal, cryosurgical, and transesophageal probes or devices also need High-level disinfection between patients.

6.7.4. Cover ultrasound probes with a sterile sheath and sterilized between each patient use as with other critical items.

6.8. Other Instruments or devices that require cleaning and disinfection.

6.9. For the level of process required for specific items and procedures.

6.10. Proper Storage:

6.10.1. Store clean supplies in closed cabinets, when this is not possible supplies may be stored on wire shelves.

6.10.2. Ensure that the sterile storage area is a well-ventilated area and provides protection against dust, moisture, insects, temperature and humidity extremes. Store sterile items so the packaging is not compromised (e.g., punctured, bent).

6.10.3. If the integrity of the packaging is compromised (e.g., torn, wet, or punctured), repack and reprocess the pack before use.

6.10.4. Label the pack at the time of sterilization with an expiration date.

6.10.5. Reprocess the pack once the date expires.

7.0 RELATED POLICY / CROSS REFERENCES:

1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 108: Laboratory safety. In APIC Text of infection control and epidemiology (4th ed.).
2. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 107: Environmental services. In APIC Text of infection control and epidemiology (4th ed.).
3. Hospital's administrative policy on management of spills of hazardous material.
4. Comprehensive guide to steam sterilization and sterility assurance in healthcare facilities, Amendment 4. ANSI/AAMI ST79:2010/A4:2013.

8.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control head	DR. SHER AGHA	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR S.C.# 06-RN-83	07 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SCFHS: 13-R-M-0046094	12 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		17 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		24 MAR 2019

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Initial Policy and Procedure	IC29-1	April 1, 2012
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ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
MANAGEMENT OF BLOOD AND BODY SPILLAGE			APP-IC-021(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-021(3)	11
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To provide guidelines on how to manage blood and body fluid spills.

1.2. To protect healthcare workers, patients and visitors from unnecessary exposures to blood borne pathogens and other potentially infectious body fluids.

2.0 DEFINITION (S):

2.1. ***Small Spill (Minor Spill)*** – Blood and body fluid spills less than 50 ml that is easily managed with a minimal amount of decontamination equipment and materials.

2.2. ***Large Spill (Major Spill)*** - Blood and body fluid spills with 50 ml or more that would require more than one person to contain large amounts of decontamination equipment and material required and/or contamination of objects that would prove difficult to decontaminate, i.e., rugs, mattresses, furniture, electronic gear.

2.3. ***Spill Kit*** – a set of equipment available to safely and effectively clean-up spills of blood or Other Potentially Infectious Material (OPIM) which shall be supplied by the institution to all areas where employees may be anticipated to come into contact with blood or OPIM.

2.4. ***Potentially Infectious Material (PIM)*** includes, Blood, Semen, Vaginal secretions, Cerebrospinal fluid, Synovial fluid, Pleural fluid, Pericardial fluid, Amniotic fluid, Saliva in dental procedures, any fluid visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids, organs or other tissues any unfixed tissue or organ (other than intact skin) from human (living or dead)

3.0 POLICY STATEMENT(S):

3.1. Blood and body fluid spills shall be managed safely and effectively to prevent transmission of infection and provide health and safety environment for all HCW's. Spills of human blood or Other Potentially Infectious Material (OPIM) shall be addressed immediately during any spill situation.

3.2. Department nurse, who received the Blood borne Pathogens Exposure Management training, shall contain and clean up minor spills. Housekeeping department shall handle all spills and clean up procedures of major spills under the supervision of a nurse on duty.

4.0 EQUIPMENT/MATERIAL/FORMS:

4.1. PPE – gloves (non-sterile-2 pairs) gown/apron

4.2. Disposable Absorbent Material (Paper, towels/Disposable cloth).

4.3. Chlorine products (Household bleach)/ wood powder

4.4. Sharp container

4.5. Dust pan, hand brush, forceps or scoop

4.6. Yellow Infectious Waste Bag

4.7. Attachment 1: Blood & body fluid exposure form.

5.0 ROLES AND RESPONSIBILITIES:

5.1. All healthcare workers are responsible and accountable for the implementation of this policy.

5.2. Infection Control Staff are responsible to monitor adherence to this policy.

6.0 PROCEDURE:

6.1. Blood and body fluid spillage management:

6.1.1. Minor Spill (less than 50 ml) Blood spills less than 50 ml or a drop of blood sustained during blood extraction is to be managed by the nurse on duty.

6.1.1.1. Wipe drop of blood with alcohol swab and discard in medical waste bag.

6.1.2. Major spills (more than 50 ml)

6.1.2.1. Use Personnel Protective Equipment (PPE)

6.1.2.2. Control the area; prevent access to the spillage until cleanup is completed.

6.1.2.3. When sharps are involved, use forceps to pick up sharps, and discard in a puncture- resistant sharps container.

6.1.2.4. If the spill contains large amounts of blood and body fluids, clean with disposable absorbent material, and discard the contaminated materials in medical waste container.

6.1.2.5. Disinfect the contaminated area with blood spills using freshly prepared chlorine product. (Household bleach 1:10).

6.1.2.6. Allow for the appropriate contact time according to manufacturer's recommendations (for 10 minutes).

6.1.2.7. Pick up the used paper towels, cloths, or solidified spill with a shovel or similar device and dispose in medical waste (yellow) bag.

6.1.2.8. Clean area and disinfect with chlorine products using disposable cloths (rag)or cotton, ensure traces of the spillage are removed. Rinse and dry area afterwards.

6.1.2.9. Remove soiled gown, gloves and other PPE and place in yellow bag for disposal.

6.1.2.10. Wash hands.

6.1.2.11. Clean, disinfect or dispose properly any equipment used to clean up spills (i.e. mops, etc.).

6.1.2.12. After cleaning and disinfecting the equipment's, return to proper storage area.

6.1.2.13. Replace PPE, bags, and other items to be readily available for future use.

6.1.2.14. If blood or potentially infectious material (PIM) spills directly onto HCW, thoroughly washed off the spill as soon as possible.

6.1.2.15. If the material has spilled on one's clothing, remove clothes; wash the exposed areas, even to the point of taking a shower.

6.1.2.16. If blood or OPIM has come in contact with any of the mucous membranes (eyes, nose, lips), thoroughly rinse the site.

6.1.2.17. If there is contact with open wounds or cracks in the skin, immediately and thoroughly wash hands with water and antiseptic soap if contaminated with body fluid.

6.1.2.18. OVR should be written for each spillage. For major spill, OVR can be writing during spill management. But for Minor spillage, OVR should be written after spill management.

7.0 RELATED POLICY / CROSS REFERENCES:

1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 100: Occupational health. In APIC Text of infection control and epidemiology (4th ed.).
2. Association for professionals in Infection Control (APIC) and Epidemiology, Inc. (2014) Chapter 101: Occupational Exposure to Bloodborne Pathogens. In APIC Text of infection control and epidemiology (4th ed.).
3. Centers for Disease Control and Prevention (CDC). For edition U.S. Public Health Service guidelines for the management of occupational exposures to HBV, HCV and HIV and recommendation for post exposure prophylaxis, MMWR 2001/50 O (RR11);1-42.
4. Centers for Disease Control and Prevention (CDC). For edition U.S. Public Health Service guidelines for public health service; guidelines for the management of occupational exposures to HIV; and, recommendation for post exposures prophylaxis. MMWR 2005; 54 (RR-09);1-17.

8.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Ms.Mirriam Licuanan	Infection Control Nurse	MIRRIAM F. LICUANAN RN 0281568 #484454	0 3 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR S.C.# 08-M-8986	0 7 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	1 0 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No: 13-R-M-0046094	1 4 MAR 2019
	Mr. Khalid Bander Khalid Al Mutairi	Quality Director	Khalid B. Almutairi	1 7 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		2 4 MAR 2019

9.0 POLICY AND PROCEDURE HISTORY:

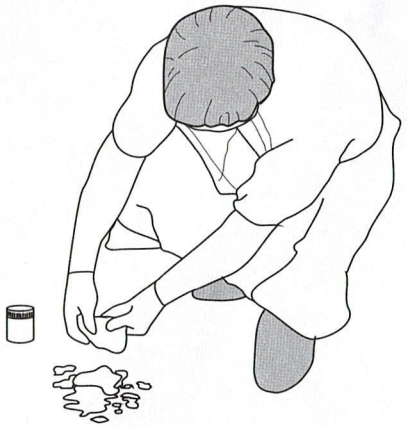
Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC 30-1	April 1, 2012
Replaced by	APP-IC-021(2)	April 1, 2014
Deleted	APP-IC-021(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-021(4)	April 1, 2019

Attachment 1: Blood & body fluid exposure form



1. Open the kit and put on the following Personal Protection Equipment (PPE) then apply as following:

a. Disposable Gown
b. Disposable Gloves
c. Disposable Face Mask with Shield



2. Open super absorbent pack and sprinkle entire contents of absorbent material evenly over bodily fluid spill (will absorb 80-100 times its weight).



3. After the spill gels (3 minutes), use scoop/scraper to pick up material and put into Biohazard Bag.
Keep Personal Protection Equipment on.

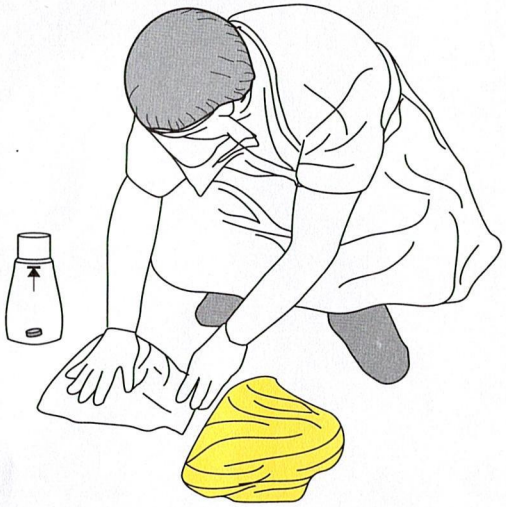


4. Use the white towel under the bottle thin.
One evervesent sodium dichloro isocianurate tablets in the bottle and add water till level .

Antiseptic Concentration :

As per instruction of the Presept usage:

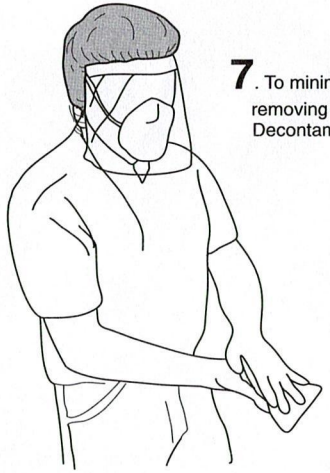
4 tablets of 2.5 gm/5 liters water = 1000 ppm for normal daily usage.
This means 10 gm/5 liters
This means 2 gm/1 liter
This means 0.5 gm/250 ml
So 1 tablet [2.5 gm]/250 ml = 5000 ppm which is effective concentration against any risky - Body Spill.



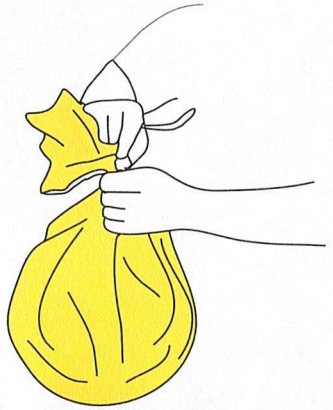
5. Use disposable wiping cloth to wipe up all the disinfectant, and then discard in Yellow Biohazrd Plastic Bag.



6. Place all items including PPE into the Yellow Biohazard Plastic Bag.
To minimize contamination to your face, remove PPE in the following order:
(1) Disposable Gown;
(2) Disposable Gloves.



7. To minimize contamination to your face use towelettes to clean hands before removing the disposable face mask with shield.
Decontaminate hands before putting them to the face.



8. Close the Yellow biohazard bag securely with fastener to prevent leakage.
Contact EHS to dispose of the waste in accordance with local regulations.
Finally, wash hands as soon as possible.

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ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
MANAGEMENT OF PATIENT WITH METHICILLIN RESISTANT STAPHYLOCOCCUS AUREUS (MRSA)			APP-IC-022(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-022(2)	6
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE

1.1. To prevent healthcare associated transmission of Methicillin Resistant Staphylococcus Aureus (MRSA) to patients, visitors and staff by implementing infection prevention and control guidelines of acquiring cross infection of MRSA in the hospital.

2.0 DEFINITION (S):

2.1. ***MRSA*** – is a resilient organism and once it has become established in a hospital, it is exceeding by commonly used antibiotics such as penicillin extended spectrum of penicillin, beta lactam/beta lactamase inhibitor combinations, cephems and carbapenems.

3.0 POLICY STATEMENT(S):

3.1. All healthcare workers shall follow the basic infection control practices and standard precautions to prevent and control MRSA in healthcare setting.

4.0 EQUIPMENTS /MATERIALS /FORMS:

4.1. Hand hygiene facilities

4.2. Personal Protective Equipment

5.0 ROLES AND RESPONSIBILITIES:

5.1. Healthcare personnel: It is the responsibility of the nurse on duty and any other personnel

involve in the management of patient care to implement and adhere to infection prevention and control practices in relation to standard precautions.

5.2. Infection control practitioner: Monitor compliance to infection prevention and control practices.

6.0 PROCEDURE:

6.1. Place all infected or colonized patients on isolation precautions.

6.2. Perform Hand Hygiene rigorously.

6.3. Wear gloves as indicated when there is possibility of direct contact with patient secretion and/or body fluids.

6.4. Wear gowns if soiling is likely.

6.5. Wear mask when caring for a patient with MRSA colonization or infection in the sputum, who have tracheostomy or a cough.

6.6. Continue to wear mask until the patient is asymptomatic or until a tracheostomy is no longer necessary. Patients with MRSA in the sputum may only be cohorted with patients alike. All other MRSA infected and/or colonized patients may be cohorted regardless of source.

6.7. MRSA Screening: MRSA screening of all admissions from extended care facilities or previously identified and upon readmission:

6.7.1. The nurse on duty will do a swab of the patient's nares.

6.7.2. If MRSA is confirmed, the Clinical Laboratory should immediately notify the responsible nurse who in turn will notify the attending physician to assure implementation of isolation techniques. The patient will immediately be placed on Contact Precautions.

6.7.3. During holidays, weekends or off duty hours, the Clinical Laboratory will notify the nurse's station or Nursing Supervisor.

6.7.4. All patients in Contact Precautions shall have dedicated noncritical equipment assigned to them, (i.e., thermometer, BP cuff, stethoscope) to avoid sharing between patients.

6.8. Isolation can be discontinued when the patient has three (3) negative cultures, taken in 1 to 2 weeks period from the source and nares if the patient is to remain hospitalized for other medical reasons. Negative cultures are not required to discharge a patient to home or

extended care facility (ECF). Discharge shall not be delayed if the only reason for a continued stay is to obtain a negative culture.

6.9. If a patient is readmitted with previous history of MRSA, the patient's admitting data is permanently flagged with this information. The Admitting Department will coordinate with Nursing Department to have the patient placed in a private room and on Contact Precautions until the result of the MRSA screen are reported by Clinical Laboratory.

6.10. Patients do not need to be cleared with three (3) negative cultures, prior to transfer to another ward.

6.11. MRSA colonized patients can be handled by extended care facilities.

7.0 RELATED POLICY / CROSS REFERENCES:

1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 93: Staphylococcus. In APIC Text of infection control and epidemiology (4th ed.).
2. APIC Guide to the elimination of methicillin-resistant staphylococcus aureus (MRSA) transmission in hospital settings, March 2007.
3. Infection Prevention and Control Manual, ICM-IV-10 Rapid MRSA surveillance.

8.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Ms. Miriiam Licuanan	Infection Control Nurse	MIRRIAM P. LICUANAN RN 0281568	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LINAN NURSING DIRECTOR S.C.# 6[illegible] RN-8386	07 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	10 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No: 13-R-M-0046094	14 MAR 2019
	Mr. Khalid Bander Khalid Al Mutairi	Quality Director	[illegible]	17 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		24 MAR 2019

9.0 POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC31-1	April 1, 2012
Replaced by	APP-IC-022(2)	April 1, 2014
Deleted	APP-IC-022(2)	April 1, 2014
Replaced by New Policy and Procedure	APP-IC-022(3)	April 1, 2016

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MRSA Decolonization Procedure

Assessment for decolonization will be performed by the Infection Preventionist (IP) in consultation
with the attending physician and an Infectious Disease Consultant.
Maintain Contact Isolation during decolonization treatment.

SUPPLIES: Chlorhexidine gluconate (CHG) 4%
Mupirocin/Bactroban, per MD order
Clean linens for the bed and patient
Personal protective equipment (PPE)

1. Spread full-strength Chlorhexidine gluconate 4% solution from neck to toes, ensuring
coverage of underarms, groin, and between fingers and toes.
- Rinse with warm water and dry your skin from neck to toes with a clean towel.
- Change the bed linens and the patient's clothing completely after each bath/shower.
- Repeat this process twice a day.
- Shampoo hair with the Chlorhexidine solution for 3 days

2. Apply Mupirocin/Bactroban ointment to anterior nares (inside nose) after Chlorhexidine
treatment, when the patient is dry and dressed as ordered by the MD.
NB: Mupirocin should not be applied to open wounds.
3. These treatments must be given for 7 consecutive days.
4. Take a complete set of cultures from nares and previously positive sites 72 hrs. after
decolonization
- If first set of samples is negative repeat cultures 48 hrs. later

5. Three negative cultures are required before the patient is cleared of MRSA and can be
taken out of isolation.
NB: These results will be assessed by the IP.

NOTES:
- The patient must not be on antibiotics at the time of screening.
- If any swab is positive, stop the screening process until further assessment.
- Please complete all documentation on this form.

MRSA Decolonization Record

START TIME: _____

TREATMENT TIME		CHLORHEXEDINE 4% WASH & SHAMPOO	MUPIROCIN / BACTROBAN OINTMENT	INITIALS
Day 1	AM			
	PM			
Day 2	AM			
	PM			
Day 3	AM			
	PM			
Day 4	AM			
	PM			
Day 5	AM			
	PM			
Day 6	AM			
	PM			
Day 7	AM			
	PM			

SCREENING 1: DATE DUE: _____ DONE: _____
Day 11

SCREENING 2: DATE DUE: _____ DONE: _____
Day 14

SCREENING 3: DATE DUE: _____ DONE: _____
Day 17

COMMENTS:

_____

_____

_____

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
MANAGEMENT OF MULTI-DRUG RESISTANT ORGANISMS (MDRO's)			APP-IC-023(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-023(3)	6
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To outline the required steps needed to prevent and control the transmission of Multi-Drug Resistant Organism among patients and within the hospital environment.

2.0 DEFINITION (S):

2.1. ***Multi-Drug Resistant Organism (MDRO'S)*** – in general, these are bacteria (excluding M. Tuberculosis) that are resistant to one or more classes of antimicrobial agents and usually are resistant to all but one or two commercially available antimicrobial agents (e.g., Methicillin Resistant Staphylococcus Aureus (MRSA), Vancomycin Resistant Enterococci (VRE), Extended-Spectrum Beta Lactamase (ESBL) producing or intrinsically resistant gram-negative bacilli.

3.0 POLICY STATEMENT(S):

3.1. A multi-tiered comprehensive approach to prevent and control the emergence of MDRO's shall be outlined to prevent patient to patient transmission in healthcare settings usually via hands of HCW's. Administrative support is vital to the success of prevention and control of MDRO's. Administrative officials therefore must understand their role and shall give their full support in the management of MDRO's.

3.2. Adequate staffing.

3.3. Effective communication availability (computer accessibility to identify patients previously admitted with MDRO).

3.4. Rooms for appropriate patient placement.

4.0 EQUIPMENTS /MATERIALS /FORMS:

4.1. Hand hygiene facilities

4.2. Personal Protective Equipment

4.3. Expanded Precaution Board: Contact

5.0 ROLES AND RESPONSIBILITIES:

5.1. Healthcare personnel: It is the responsibility of the nurse on duty and any other personnel involve in the management of patient care to implement and adhere to infection prevention and control practices in relation to standard precautions.

5.2. Infection Preventions: Monitor compliance to infection prevention and control practices.

6.0 PROCEDURE:

6.1. Diligent Surveillance:

6.1.1. Do screening.

6.1.1.1. Mark microbiology requests with the screening being requested (marked for MRSA if such is the screening needed).Laboratory notifies the ICO for MDRO's.

6.1.1.2. Rapid communication is done for proper patient placement and isolation precautions be initiated.

6.1.1.3. Educate entire staff including medical staff regarding the extreme importance of strict hand hygiene.

6.1.1.4. Physicians are urged to:

a. Treat infections and not contaminants.

b. To limit the duration of antibiotic therapy.

c. To restrict the use of broad spectrum and/or new more potent antibiotics in which the use shall be restricted to treatment of serious infections when no other treatment is available.

d. Do prompt initiation of Contact Precaution once a patient has a positive culture of MRSA or VRE regardless of source.

e. Place patient in a single room or cohort with the same MDRO patients (cohorting of the patient and staff).
f. Place contact precaution sign on the door. Apply standard precaution for all patients, but a combination of precautions is judicious.
g. Minimize the amount of supplies in the patient's room.
h. Proper daily cleaning of the patient's environment (i.e., bedrails, over bed tables) is of utmost importance.
i. **Environmental services personnel who care for patients with MDRO shall dedicate the cleaning equipment for MDRO patients only**.
j. Handle/discard contaminated items as per Standard Precautions
k. Perform procedures and tests at bedside when possible and limit patient's transport or activity outside the room.
l. Patient Transport Procedure: (When test and procedure are done in other units)
m. Transport personnel who need to touch the patient (i.e., bagging a ventilated patient, suctioning a patient with a tracheostomy, etc.) shall wear gown and gloves to perform patient care en route and mask if the organism has been found in the sputum.
n. The staff with full barrier precaution shall not touch anything in the environment and shall be accompanied by staff member who will open doors and push elevator buttons.
o. Decolonization regimens are not used routinely. The use of decolonization is limited to MRSA outbreaks, or other high prevalence situations, especially those affecting special-care units.

7.0 RELATED POLICY / CROSS REFERENCES:

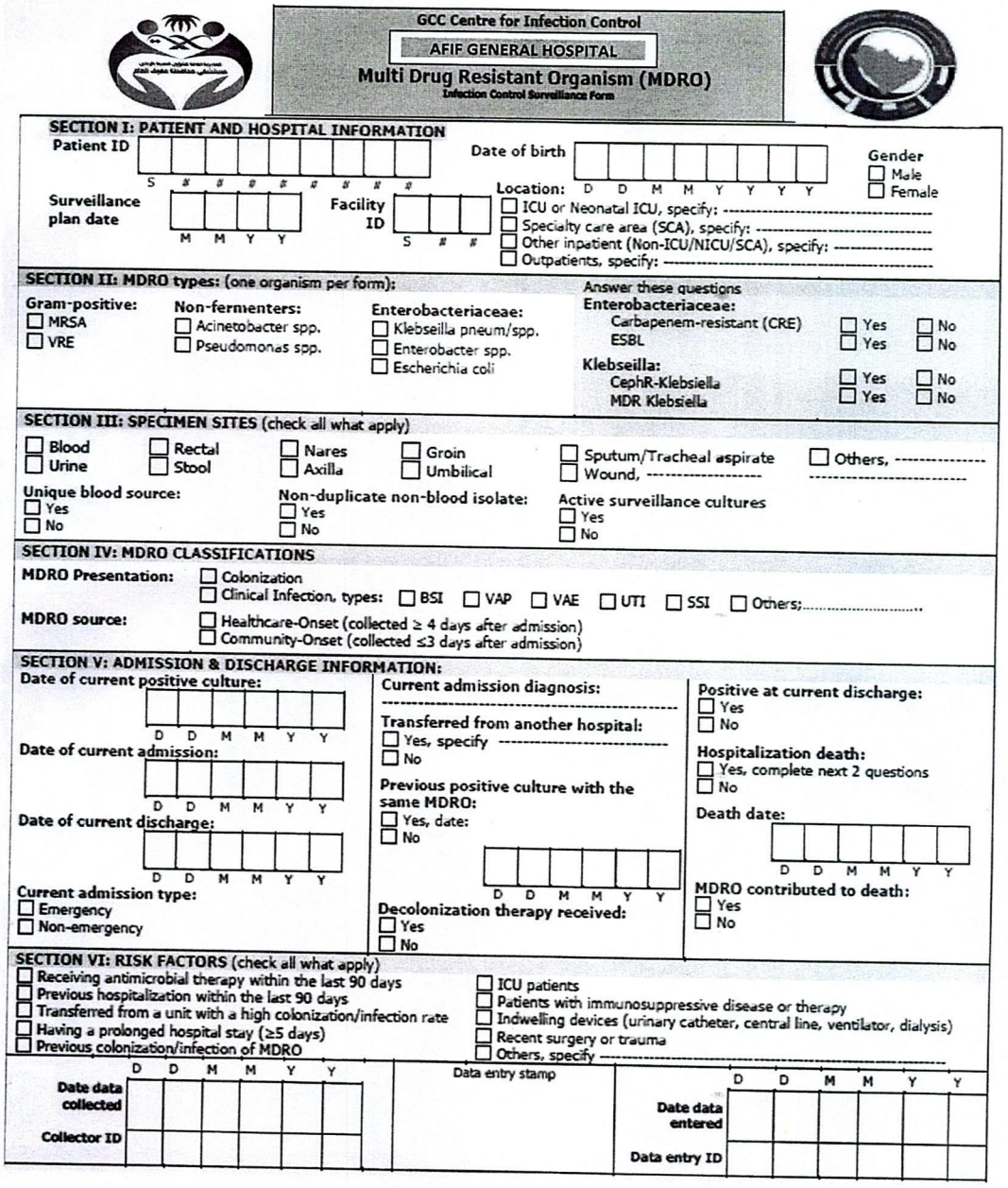
1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 29: Isolation precautions. In APIC Text of infection control and epidemiology (4th ed.)
2. HICPAC/CDC Guidelines for isolation precautions: preventing transmission of infectious agents in healthcare setting, 2007.

8.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	13 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR S.C.# 06-NN-3386	07 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No# 13-R-M-0046094	12 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Mr. Khalid B. AlMutairi	17 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		

9.0 POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC32-1	April 1, 2012
Replaced by	APP-IC-023(2)	April 1, 2014
Deleted	APP-IC-023(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-023(4)	April 1, 2019



GCC Centre for Infection Control

AFIF GENERAL HOSPITAL

Multi Drug Resistant Organism (MDRO)

Infection Control Surveillance Form

SECTION I: PATIENT AND HOSPITAL INFORMATION

Patient ID (S # # # # # # # #)

Date of birth (D D M M Y Y Y Y)

Gender: ☐ Male ☐ Female

Surveillance plan date (M M Y Y)

Facility ID (S # #)

Location:
- ☐ ICU or Neonatal ICU, specify: ----------
- ☐ Specialty care area (SCA), specify: ----------
- ☐ Other inpatient (Non-ICU/NICU/SCA), specify: ----------
- ☐ Outpatients, specify: ----------

SECTION II: MDRO types: (one organism per form):

Gram-positive:
- ☐ MRSA
- ☐ VRE

Non-fermenters:
- ☐ Acinetobacter spp.
- ☐ Pseudomonas spp.

Enterobacteriaceae:
- ☐ Klebsiella pneum/spp.
- ☐ Enterobacter spp.
- ☐ Escherichia coli

Answer these questions

Enterobacteriaceae:
- Carbapenem-resistant (CRE) ☐ Yes ☐ No
- ESBL ☐ Yes ☐ No

Klebsiella:
- CephR-Klebsiella ☐ Yes ☐ No
- MDR Klebsiella ☐ Yes ☐ No

SECTION III: SPECIMEN SITES (check all what apply)

- ☐ Blood ☐ Urine
- ☐ Rectal ☐ Stool
- ☐ Nares ☐ Axilla
- ☐ Groin ☐ Umbilical
- ☐ Sputum/Tracheal aspirate ☐ Wound, ----------
- ☐ Others, ----------

Unique blood source: ☐ Yes ☐ No

Non-duplicate non-blood isolate: ☐ Yes ☐ No

Active surveillance cultures ☐ Yes ☐ No

SECTION IV: MDRO CLASSIFICATIONS

MDRO Presentation:
- ☐ Colonization
- ☐ Clinical Infection, types: ☐ BSI ☐ VAP ☐ VAE ☐ UTI ☐ SSI ☐ Others;.....

MDRO source:
- ☐ Healthcare-Onset (collected ≥ 4 days after admission)
- ☐ Community-Onset (collected ≤3 days after admission)

SECTION V: ADMISSION & DISCHARGE INFORMATION:

Date of current positive culture: (D D M M Y Y)

Date of current admission: (D D M M Y Y)

Date of current discharge: (D D M M Y Y)

Current admission type:
- ☐ Emergency
- ☐ Non-emergency

Current admission diagnosis: ----------

Transferred from another hospital:
- ☐ Yes, specify ----------
- ☐ No

Previous positive culture with the same MDRO:
- ☐ Yes, date: (D D M M Y Y)
- ☐ No

Decolonization therapy received:
- ☐ Yes
- ☐ No

Positive at current discharge:
- ☐ Yes
- ☐ No

Hospitalization death:
- ☐ Yes, complete next 2 questions
- ☐ No

Death date: (D D M M Y Y)

MDRO contributed to death:
- ☐ Yes
- ☐ No

SECTION VI: RISK FACTORS (check all what apply)
- ☐ Receiving antimicrobial therapy within the last 90 days
- ☐ Previous hospitalization within the last 90 days
- ☐ Transferred from a unit with a high colonization/infection rate
- ☐ Having a prolonged hospital stay (≥5 days)
- ☐ Previous colonization/infection of MDRO
- ☐ ICU patients
- ☐ Patients with immunosuppressive disease or therapy
- ☐ Indwelling devices (urinary catheter, central line, ventilator, dialysis)
- ☐ Recent surgery or trauma
- ☐ Others, specify ----------

Date data collected (D D M M Y Y)	Data entry stamp	Date data entered (D D M M Y Y)
Collector ID		Data entry ID

1 of 2

SECTION VII: LABORATORY RECORD

Name of Gram Positive or Negative	Date of record DD-MM-YY	MTDYRPOE	Antimicrobial sensitivity																														
			AMIK	AMPSUL	AMXCLV	CEFAZ	CEFEP	CEFOTX	CEFOX	CEFTAZ	CEFTRX	CEFUR	CIPRO	CLIND	COL	DORI	ERTA	ERYTH	GENT	IMI	LEVO	LNZ	MERO	METH	MINO	MOXI	OXA	PIP	PIPTAZ	TMZ	TIG	TOBRA	VANC

MDRO: (1) MRSA (2) VRE (3) CephR-Klebsiella (4) Carbapenem resistant Enterobacteriaceae (CRE) (5) MDR Acinetobacter (6) MDR Klebsiella (7) MDR Pseudomonas

CephR-Klebsiella: non-susceptible (resistant or intermediate) to at least one cephalosporin agent (ceftazidime, cefotaxime, ceftriaxone, or cefepime)

Carbapenem resistant Enterobacteriaceae (CRE): E-coli, Klebsiella, or Enterobacter resistant to at least one carbapenem agent (imipenem, meropenem, doripenem, or ertapenem OR by production of a carbapenemase

MDR Acinetobacter: non-susceptible (resistant or intermediate) to at least one agent in at least 3 out of 6 antimicrobial classes (penicillins, aminoglycosides, cephalosporins, fluoroquinolones, carbapenems, and sulbactam)

MDR Klebsiella or Pseudomonas: non-susceptible (resistant or intermediate) to at least one agent in at least 3 out of 5 antimicrobial classes (penicillins, aminoglycosides, cephalosporins, fluoroquinolones, and carbapenems)

Classes: Penicillins (Piperacillin, Piperacillin/Tazobactam), Aminoglycosides (Amikacin, Gentamicin, Tobramycin), Cephalosporins (Cefepime, Ceftazidime), Fluoroquinolones (Ciprofloxacin, Levofloxacin), Carbapenems (Imipenem, Meropenem, Doripenem), And Sulbactam (Ampicillin/Sulbactam)

AMK= amikacin
AMPSUL= ampicillin/sulbactam
AMXCLV= amoxicillin/clavulanic
CEFAZ= cefazolin
CEFEP = cefepime
CEFOTX = cefotaxime
CEFOX= cefoxitin
CEFTAZ= ceftazidime
CEFTRX= ceftriaxone
CEFUR= cefuroxime
CIPRO= ciprofloxacin
CLIND= clindamycin
COL= colistin
DORI= doripenem
ERTA= ertapenem
ERYTH= erythromycin
GENT= gentamicin
IMI= imipenem
LEVO= levofloxacin
LNZ= linezolid
MERO= meropenem
METH= methicillin
MINO= minocycline
MOXI= moxifloxacin
OXA= oxacillin
PIP= piperacillin
PIPTAZ= piperacillin/tazobactam
TMZ= sulfamethoxazole/trimethoprim
TIG= tigecycline
TOBRA= tobramycin
VANC= vancomycin

S = Susceptible
I = Intermediate
R = Resistant
N = Not tested

Duplicate MDRO non-blood isolate: MDRO isolate from the same patient and location after an initial isolation of the specific MDRO during a calendar month, regardless of specimen source

Unique Blood Source: A MDRO isolate from blood in a patient with no prior positive blood culture for the same MDRO and location in ≤2 weeks, even across calendar months and different facility admissions

Active surveillance cultures: cultures not performed for purposes of clinical diagnosis or treatment including, but not limited to stool cultures for VRE and/or nasal swabs for MRSA surveillance

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL		SECTION:	
TITLE/DESCRIPTION		POLICYNUMBER &VERSION	
ENVIRONMENTAL SERVICE – HOUSEKEEPING		APP-IC-024(4)	
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-024(3)	18
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HOUSEKEEPING DEPARTMENT, NURSING PERSONNEL, INFECTION CONTROL DEPARTMENT STAFF AND OTHER HEALTHCARE WORKERS	

1.0 PURPOSE:

1.1. To achieve a clean and healthy environment through regular general housekeeping.

1.2. To provide guidelines on environmental cleaning for clinical and housekeeping teams.

2.0 DEFINITION (S):

2.1. ***Environmental disinfection*** – means the use of surface disinfection for reducing the number of viable microorganisms.

2.2. ***Non-patient care areas*** – administrative area, non-sterile supply areas, record storage and archives.

2.3. ***Patient care areas*** – e.g. all general patient wards, ICU, NICU, Emergency Rooms, other departments where invasive procedures are performed, outpatient clinics, sterile supplies, laboratory and mortuary.

3.0 POLICY STATEMENT(S):

3.1. Housekeeping personnel shall understand the risk inherent in hospital environmental contamination. All housekeeping personnel therefore shall be trained to do the following housekeeping activities.

3.1.1. Proper cleaning method

3.1.2. Routine and terminal cleaning

3.1.3. Proper changing of liquid soap and dispenser

3.1.4. Proper dilution of solutions used.

3.1.5. Must follow appropriate barrier technique.

إدارة الجودة
وزارة الصحة
Ministry of Health

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3.2. Healthcare facility environment shall be maintained in a state of physical well-maintained biologically clean and safe environment and shall be of acceptable standards to patient their visitors and staff.

4.0 EQUIPMENTS /MATERIALS /FORMS:

4.1.Cleaning sweeper

4.2.Detergent (e.g. soap); disinfectant (chlorine solution)

4.3.Mop with long handles, mop double or triple bucket

4.4.Disposable damp cloth and paper towels

4.5. Attachment 1: Housekeeping Cleaning Checklist

5.0. ROLES AND RESPONSIBILITIES:

All members of staff have a part to play in maintaining the hospital environment however the prime responsibility of providing a clean safe environment is that of the house keeping services, nursing and infection control staff.

5.1.Hospital maintenance department

5.1.1. Inspection and regular maintenance of the plumbing, heating, refrigeration equipment, electrical fitting and air conditioning, records of this activity shall be kept.

5.1.2. Developing procedures for emergency repairs of any defects

5.1.3. Ensuring safety of water sources.

5.1.4. Participation with housekeeping, nursing staff and other appropriate groups in selecting equipment if maintenance of the equipment requires technical assistance.

5.1.5. Inspection, cleaning and regular replacement of the filters of all appliances for ventilation and humidifiers.

5.1.6. Regularly inspecting all surfaces – walls, floors, ceilings – to ensure they are kept smooth and washable and repairing any opening or crack in partition walls or window frames.

5.1.7. Notifying infection control of any anticipated interruption of services such as plumbing or air conditioning.

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5.1.8. Eyewash station shall be available near the area where chemicals are prepared.

5.2.Contactors and housekeeping managers

5.2.1. Must provide the infection control department of the following:

5.2.1.1.The manufacturer's name, chemical name, composition and concentration of a disinfectant, detergent or disinfectant-detergent.

5.2.1.2.The material safety data sheet (MSDS) and efficacy data sheet (EDS) for the selection and approval of the products to be used.

5.2.1.3.Must provide a good quality of cleaning/disinfection equipment.

5.2.1.4.Must provide good quality, safety personal protective equipment (PPE) to housekeeping staff

5.2.1.5.Must ensure that all housekeeping staff has received training in cleaning methodologies and safety, in line with the infection control training and standards.

5.2.1.6.Must comply with the standards of housekeeping guidelines of MOH.

5.3.Housekeeping supervisor

5.3.1. Must work as a team with the ward nurse and staff supervisor, taking responsibility for supervising and coordinating all housekeeping activities.

5.3.2. Must ensure that the housekeeping staff is supplied with and is aware of the dilution of the disinfectant and have a copy of the procedural guidelines for using the disinfectant

5.3.3. Regular supervision of the housekeeping performance to ensure maintenance of a clean, safe and comfortable environment

5.3.4. Must ensure isolation areas are cleaned appropriately

5.3.5. Must identify problems with cleanliness and report to the housekeeping manager.

5.3.6. Must make sure all products are labeled correctly.

5.3.7. Be directed as required by members of the infection control team, particularly in "outbreak" situation

5.3.8. Ensure safe working practices.

5.3.9. Must ensure keeping appropriate records of environmental cleaning and disinfection activities.

5.3.10. Must monitor cleaning standards on a regular basis.

5.3.11. Ensure the development and availability or internal policies for cleaning schedules and methods which should include the name and contact number of the person who is responsible for housekeeping, the name and contact number of infection control personnel who is supervising healthcare facilities (HCF) cleanliness.

5.4.Housekeeping staff

5.4.1. Take the responsibility for cleaning all hospitals areas according to this guideline.

5.4.2. Carry out standard and special cleaning tasks, in accordance with MOH housekeeping guidelines.

5.4.3. Read, understand and adhere to safety guidelines warning, dilution ration and usage, storage and safety precautions for all chemicals and stay alert while using chemicals and equipment.

5.4.4. Read material safety data sheets (MSDS).

5.4.5. Check and replenish soap and hand towels.

5.4.6. Perform standard cleaning for all housekeeping surfaces (all floors, corridors, patient's rooms and toilets, clinic rooms, offices, kitchen areas, i.e., sinks, shelves, fridges and microwaves)

5.4.7. Ensure all bins are emptied and cleaned.

5.4.8. Disposing of waste material, clinical waste and soiled linen by the correct method.

5.4.9. Order, store and maintain supplies of cleaning materials and equipment

5.4.10. Undertaking a rigorous program of cleaning and disinfection tasks during any outbreak situation as directed by the housekeeping manager, ward nurse supervisor, and the infection control personnel.

5.5.Ward Head Nurse / Nurse supervisor

5.5.1. Have approved written policy from the housekeeping staff supervisor regarding out of hours contact and arrangements in the event of a major outbreak.

5.5.2. Cleaning schedules shall be developed by the head nurse in accordance with hospital policies.

5.5.3. Be aware about who is responsible for each aspect of cleaning and when/how often it must be done.

5.5.4. To supervise the general cleanliness of the ward.

5.5.5. To report to the housekeeping supervisor and infection control personnel on deficits in standards of cleanliness.

5.5.6. Informing the Infection Control Team and the housekeeping staff supervisor when a patient is admitted in isolation

5.5.7. Advising the housekeeping staff on the necessary infection control precautions and when it is necessary to clean the room.

5.6.Nursing staff

5.6.1. Clean and disinfect patient clinical equipment.

5.6.2. Check inside locker for patient property.

5.6.3. Check if cleanliness/disinfection standards are satisfactory.

5.7.Infection control team

5.7.1. Select and approve a disinfectant – detergent product.

5.7.2. Advice on housekeeping cleaning – disinfection process.

5.7.3. Advice on required PPE and immunization for housekeeping staff.

5.8.Health Facility Managers

5.8.1. Empower and support the implementation of these guidelines.

5.8.2. Enable infection control team (ICT) to take any corrective actions or interventions to prevent cross transmission.

6.0. PROCEDURE:

6.1. Apply/practice standard precautions in all healthcare activities.

6.1.1. Hand hygiene is to be performed and in line with infection control protocol.

6.1.2. Wear personal protective equipment according to anticipated exposure (N95 mask when entering an airborne isolation room).

6.1.3. Observed strict care when emptying trash bins to prevent accidental sharps and needle injuries.

6.1.4. Always check expanded precaution cards at the door of isolation rooms before entry to know the proper precautionary measure to be applied.

6.2.Cleaning and disinfecting processes to follow for environmental surfaces.

6.2.1. Cleaning methods

6.2.1.1.Dry cleaning – use of vacuum cleaners on carpeted areas, change bag when ¾ full.

6.2.1.2.Wet cleaning – required way of cleaning for healthcare facility (HCF) environment.

6.2.2. Cleaning and disinfection process

6.2.2.1. Cleaning process is use for non-patient care areas. Use of detergent and water is adequate.

6.2.2.2. Use for all inpatient and isolation rooms or any ward during an outbreak.

6.2.2.3. Clean and disinfect daily, when an area is visibly contaminated, soiled or whenever needed.

6.2.2.4. Special cleaning process use for blood and body fluid spills.

i. Clean immediately all work surfaces contaminated with blood and body fluids with intermediate level disinfectant (chlorine base compound).

6.2.3. Cleaning practices to consider in housekeeping

6.2.3.1. Prepare detergent/disinfecting solutions as recommended by the manufacturer and replace with fresh solution when visibly dirty.

6.2.3.2. Wet dust horizontal surfaces regularly using low level disinfectant or detergent.

6.2.3.3. Housekeeping staff are allowed to decontaminate only the environment and not clinical patient equipment. Only nursing staff are allowed to decontaminate reusable equipment and for disposal of single use equipment.

6.2.3.4. Wear PPE as indicated.

6.2.3.5. Remove loose dirt and debris before mopping

6.2.3.6. Use wet floor sign when needed.

6.2.3.7. Start cleaning/disinfection with least soiled areas, and move to the most soiled areas and from high to low surface.

6.2.3.8. Use low level disinfection or intermediate level disinfectant during routine cleaning/disinfection of all horizontal areas and medical equipment surfaces in patient care areas at the start of the day and as frequent as indicated using a clean rag in each area.

6.2.3.9. Clean immediately all work surfaces contaminated with blood and body fluids with intermediate level disinfectant.

6.2.3.10. Walls, windows and window curtains are cleaned on a routine schedule and when visibly soiled and spot cleaned as indicated.

6.2.3.11. Keep patient closets clean and orderly.

6.2.3.12. Keep air conditioning system clean according to schedule.

6.2.3.13. Clean bathrooms daily and fixed cracks on hard surfaces.

6.2.3.14. Clean and disinfect mops and buckets (do not store mops and rags in closets) after cleaning.

6.2.3.15. Report unsafe condition to supervisor immediately.

6.2.4. Cleaning supplies and equipment

6.2.4.1. Used equipment for cleaning may be heavily contaminated with bacteria and viruses and therefore, several factors should be considered for use:

i. Enough number of equipment is available.

ii. Used double or triple buckets – one for squeezing out dirty water, one containing clean water with detergent and third bucket is used for wringing out the mop before rinsing with water.

iii. Color code cleaning materials to be used daily for (general areas, toilets, etc)

iv. Decontaminate mop heads daily and as frequently as needed.

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v. Regularly clean, disinfect and examine as necessary all used cleaning equipment and store dry and clean.

vi. Repair or replace as appropriate all damage equipment

vii. Microfiber mops advice because:

a. Microfiber materials are more absorbent, conventional cotton, string mop and demonstrate superior microbial removal.

b. Microfiber materials prevent possibility of transferring microbes from room to room because a new microfiber pad is use in each room.

6.2.4.2. Liquid soap dispenser maintenance

i. Ensure that extreme care in the selection of dispensing system is highly considered.

ii. Policies and procedures for appropriate cleaning and maintenance of dispenser are to be considered a major function of the housekeeping activities.

iii. Use good quality wall mounted dispensers in easy to clean place.

6.3. Cleaning and disinfection of isolation room and single room

6.3.1. The cleaning and housekeeping staff should first see the nurse in charge of the unit prior to cleaning for essential instructions.

6.3.2. Use appropriate protective equipment.

6.3.3. Assemble designated cleaning equipment to be used before entering the area and disinfect after the cleaning procedure.

6.3.4. Assign dedicated staff if possible.

6.3.5. Use intermediate level disinfectant (chlorine based compounds) twice daily, morning and evening and as frequent as indicated using clean rag in each area.

6.3.6. Decontaminate immediately all work surfaces contaminated with spill of blood or body fluids using chlorine based compounds.

6.3.7. Perform through decontamination and drying of all cleaning equipment after use.

6.3.8. Any disposable items (e.g. used paper towels, gloves and aprons) are to be disposed of as contaminated clinical wastes.

6.3.9. Bag and label correctly all wiping towels and mop heads used and send for laundering or disinfect manually after each use.

6.3.10. Perform hand hygiene after the procedure.

6.4. Cleaning deceased patient's room

6.4.1. Apply standard precautions along with expanded precautions which were in effect when the patient was still alive.

6.4.2. Promptly clean and decontaminate items contaminated with spills of blood and other potentially infectious materials (OPIM).

6.5. Terminal cleaning

6.5.1. Remove all curtains and send to the laundry for washing.

6.5.2. Clean beds, fixtures, tables, chairs and toilets.

6.5.3. Clean wall and floors using 1:50 bleach solution.

6.5.4. Use appropriate PPE.

6.5.5. Dispose waste in yellow containers.

6.6. After care of cleaning materials

6.6.1. Once used regard all cleaning equipment as infected. Therefore, these must be cleaned, disinfected and dried immediately ready for use for the next cleaning procedure.

6.6.2. Do not take out all cleaning equipment in the operating theaters. Cleaning materials dedicated for high risk areas are not to be borrowed from one area to another as one way of prevention of cross contamination.

6.7. Frequency of cleaning

6.7.1. Corridors and public places

6.7.1.1. Maximum continuous cleaning of high traffic areas up to 16 hours daily.

6.7.1.2. Maximum continuous cleaning for low traffic areas – up to 8 hours daily.

6.7.1.3. Clean and inspect praying areas for at least once a day.

6.7.1.4. Inspect toilets and ablution areas regularly.

6.7.2. Wards and clinics

6.7.2.1. Generally clean daily and as often as necessary.

6.7.2.2. Spot cleaning of toilets and ablution areas including closets and lockers.

6.7.3. High risk areas

6.7.3.1. 24 hours maximum careful cleaning is required in:

i. OR
ii. NICU/PICU
iii. ICU

6.7.4. Extra duties for high risk areas

6.7.4.1. Damp dust all fixtures, fittings and surfaces using 1:50 bleach solution

6.7.4.2. Damp mop floors using bleach 1:50 bleach solution

6.7.4.3. Fully clean walls every 3 to 5 days

6.8. Clean up of blood and body fluids

6.9. Recommendations for cleaning of surgical suites

6.10. Disinfectant

6.10.1. Any healthcare facility should check that cleaning product chosen has been registered and has a registered number on the label.

6.10.2. Intermediate and low level disinfectant should specify indications for product use and range of antimicrobial activity provided.

6.10.3. Working condition is to be ensured.

6.10.3.1. Dilute per label instructions.

6.10.3.2. Allowed to dwell on the surface.

6.10.3.3. Must be use per manufacturer's instructions.

6.10.3.4. Alcohol not to be use to disinfect large environmental surfaces.

6.10.3.5. Follow manufacturer's instruction for proper use of disinfecting products such as:

i. Recommended use dilution
ii. Material compatibility
iii. Storage
iv. Shelf life
v. Appropriate safe use and disposal

6.11. Safety requirements to consider in housekeeping

6.11.1. Comply with the Ministry of Health housekeeping guidelines and recommendations.

6.11.2. Have adequate number of housekeeping staff.

6.11.3. Provide training and give lectures to housekeeping staff.

6.11.4. Comply with hand hygiene guideline and have adequate supply of PPE.

6.11.5. Follow manufacturer's direction for cleaning materials and disinfectants products use.

6.11.6. Avoid disinfectant fogging and spraying in patient care areas.

6.11.7. Prepare disinfectants freshly at time of use and discard immediately after use.

6.11.8. Read all directions on chemicals before use and never mix chemicals together, mix only with water.

6.11.9. Never use chlorine releasing agents directly on spills of urine, it could result in a rapid release of toxic chlorine.

6.11.10. Ensure good ventilation when using chlorine product.

6.11.11. Have an eyewash area available where chemicals are prepared.

6.12. Proper cleaning procedures

6.13. Chlorine based disinfectant preparations

6.14. Levels of disinfectants used in HCF

6.15. Intermediate levels disinfectant

7.0. RELATEDPOLICY / CROSS REFERENCES:

1. Ontario Agency for Health Protection and Promotion, Provincial Infectious Diseases Advisory Committee. Best Practices for Environmental Cleaning for Prevention and Control of Infectious in Al Health Care Settings. 2nd Revision. Toronto, ON: Queen's Printer for Ontario; 2012.
2. HICPAC. Guidelines for environmental infection control in health-care facilities: Recommendations of CDC and the Health Care Infection Control Practices Advisory Committee (HICPAC). 2003. U.S. Department of Health and Human Services Centers for Disease Control and Prevention (CDC) Atlanta, GA 30333. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 107: Environmental Services. In APIC Text of infection control and epidemiology, 4th ed.
3. Minnesota Hospital Association. Environmental services cleaning guidebook: controlling CDI environmental services. Adapted from Allina Hospitals and Clinics Environmental Services Cleaning Guidebook by the Minnesota Hospital Association (MHA), Minnesota Department of Health (MDH) and Stratis Health, with representatives from: Central Care Health – Melrose, Grand Itasca Clinic and Hospital, Minnesota Valley Health Center, Park Nicollet Methodist Hospital, United Hospital, University of Minnesota Medical Center, and Windom Area Hospital, as part of the "Controlling CDI" project. (2013).

4. United States Department of Labor. Occupational Safety & Health Administration. (OSHA). Housekeeping. https://www.osha.gov/SLTC/etools/hospital/housekeeping/ housekeeping.html

Before cleaning occupied room: • Check for isolation status • Always perform hand hygiene • Don appropriate PPE • Check sharps container. Change if necessary • Empty the trash container. Handle plastic bags from top.	**DO NOT WEAR DIRTY GLOVES OUTSIDE THE ROOM** If you have to leave the room after you have started a room clean, remove your gloves and perform hand hygiene. Put a new pair of gloves on to resume cleaning.
PATIENT ROOM: Clean and disinfect using disinfectant and cleaning rags.	**PATIENT RESTROOM:** Clean and disinfect using disinfectant and cleaning rags.
Change rag as needed to ensure saturation **NO DOUBLE DIPPING**	Change rag as needed to ensure saturation **NO DOUBLE DIPPING**
PATIENT ROOM: • Raise and wipe down arm rails – high touch area • Wipe foot of bed • If the call box or phone is on the bed, wipe down at this time	PATIENT ROOM: • Light switches – high touch area • Door handles, knobs – high touch area • Hand rails – high touch area • Sink and sink counter – high touch area • Clean soap and paper towel dispensers • Wipe shower or tub • Spot walls
CHANGE RAG AND START WITH A FRESH ONE AFTER CLEANING THE BED	**CHANGE RAG AND START WITH A FRESH ONE AFTER CLEANING THE TOILET**

Move from door and sanitize all equipment (Restroom to be done last)	• Toilet paper dispenser • Toilet flusher- high touch area • Toilet seat – high touch area • Under the bowl • Toilet rim • Clean the inside of bowl with disinfectant cleaner and toilet brush • Clean commode frame and seat cover LAST
Ledges (below shoulder height) • Door handles, knobs • Light switches • Call box • Telephone • Window sills and ledges • Computer keyboard • Soiled linen hamper lid • In-room patient sink and faucet • In-room soap dispenser and paper towel dispenser • Biohazard can • Dry erase marker • Over bed table • Patient chairs • Bedside tables • All other easily accessible wall mounted equipment	**BEFORE LEAVING THE ROOM:** • **Remove gloves and perform hand hygiene** • **Restock supplies** • **Place wet floor sign in the doorway** • **Mop floor – never shake mop** • **Perform hand hygiene**

Before terminal room cleaning:

- Change room status to "Cleaning in progress"
- Always perform hand hygiene
- Don appropriate PPE
- Remove all soiled linen
- Wipe down equipment with disinfectant and then remove from room
- Remove linen from bed and place into linen hamper
- Remove any patient equipment from room per hospital procedure, place IV poles with bags on them by door and notify nursing staff
- Remove oxygen tubing and make sure oxygen is off
- Check room for previous patient belongings – take any items to the nursing station
- Check sharps container. Change if necessary.
- Empty the trash container. Handle plastic bags from the top.
- Discard open facial tissue boxes and used paper rolls.
- Perform high dusting with an extending lamb's wool duster all areas above shoulder height

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DO NOT WEAR DIRTY GLOVES OUTSIDE OF THE ROOM

If you have to leave the room after you have started a room clean, remove your gloves and perform hand hygiene. Put a new pair of gloves on to resume cleaning.

PATIENT ROOM: Clean and disinfect using disinfectant and cleaning rags. Change rag as needed to ensure saturation NO DOUBLE DIPPING	**PATIENT RESTROOM: Clean and disinfect using disinfectant and cleaning rags. Change rag as needed to ensure saturation NO DOUBLE DIPPING**
PATIENT BED: • Raise foot and head of bed before starting • Hand rails • Mattress – top and bottom Pillows – place cleaned pillow back on mattress	• Light switches • Door handles, knobs • Hand rails • Sink and sink counter • Clean soap and paper towel dispensers • Wipe shower or tub • Spot walls

CHANGE RAG AND START WITH A FRESH ONE AFTER CLEANING THE BED	CHANGE RAG AND START WITH A FRESH ONE AFTER CLEANING THE TOILET
Move from door and sanitize all equipment (Restroom to be done last)	• Toilet flusher- high touch area • Toilet seat – high touch area • Under the bowl • Toilet rim • Clean the inside of bowl with disinfectant cleaner and toilet brush • Clean commode frame and seat cover LAST
Ledges (below shoulder height) • Door, door handles, knobs • Light switches • Call box • Telephone • Pt. storage cabinets & drawers hosp. info book • Window sills and ledges • Computer keyboard • Soiled linen hamper lid • In-room patient sink and faucet • In-room soap dispenser and paper towel dispenser • Biohazard can • Dry erase marker • Over bed table • Patient chairs • Bedside tables • Thermostat – check with maintenance for temperature • Glove boxes • All other easily accessible wall mounted equipment • Spot clean walls • Inspect privacy curtains for stains or damage order change out if soiled	**BEFORE LEAVING THE ROOM** • Remove gloves and perform hand hygiene • Restock supplies • Make up bed – will depend on location • Place wet floor sign in doorway • Final check for room cleanliness • Final maintenance check – lights and repairs • Mop floor – never shake mop • Change room status to "ready" • Remove wet floor sign- after floor has dried • Perform hand hygiene

Patient room	Bathroom	Operating room
Bed controls	Bedpan cleaners/flushers	Anesthesia equipment & controls
Bed rails	Call light	Anesthesia supply cart
Bedside table	Doorknobs	Arm boards
Over bed table	Faucet handles	Autoclave door handles
Cabinet knobs	Handrails	Back table
Call light	Hand held shower handles	Computer keyboard
Doorknobs	Light switch	Door handles
IV poles	Sinks	IV poles
Chair	Toilet flush	Light switches
Room sink	Toilet seat	Mayo stand
Telephone		Medication cart
Chair arms/seat		Operating bed
Computer keyboard		Operating bed controls
Handheld Television controls		Operating bed straps
Ventilator controls		Overhead surgical lights
Thermometer		Patient monitors
Blood pressure cuff		Ring stand
		Sponge counter
		Storage cabinet door handles
		Telephone
		Warm door handles

8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR S.C.# 08-RN-8386	06 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC.No: 13-R-M-0046094	11 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Mr. Khalid B. AlMutairi	19 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		24 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC24-1	April 1, 2012
Replaced by	APP-IC-024(2)	April 1, 2014
Deleted	APP-IC-024(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-024(3)	April 1, 2019

Environmental Checklist for Monitoring Terminal Cleaning

Date:	
Unit:	
Room Number:	
Initials of ES staff (optional):[2]	

Evaluate the following priority sites for each patient room:

High-touch Room Surfaces[3]	**Cleaned**	**Not Cleaned**	**Not Present in Room**
Bed rails / controls			
Tray table			
IV pole (grab area)			
Call box / button			
Telephone			
Bedside table handle			
Chair			
Room sink			
Room light switch			
Room inner door knob			
Bathroom inner door knob / plate			
Bathroom light switch			
Bathroom handrails by toilet			
Bathroom sink			
Toilet seat			
Toilet flush handle			
Toilet bedpan cleaner			

Evaluate the following additional sites if this equipment is present in the room:

High-touch Room Surfaces[3]	**Cleaned**	**Not Cleaned**	**Not Present in Room**
IV pump control			
Multi-module monitor controls			
Multi-module monitor touch screen			
Multi-module monitor cables			
Ventilator control panel			

Mark the monitoring method used:

☐ Direct observation ☐ Fluorescent gel ☐ Agar slide cultures
☐ Swab cultures ☐ ATP system

Kingdom of Saudi Arabia
Ministry of Health
General Directorate of Health Riyadh Region
Afif General Hospital
Infection Control Department

DILUTION OF CLEANING AND DISINFECTING SOLUTIONS FOR HOUSEKEEPING

CHLOROX

Area	Dilution	Water
Toilet	No dilution	
For cleaning of environmental surfaces (e.g. floors, walls etc.)	1:10 (1- 1/2 cups)	1 Galloon (3.78 L)
	1:100 (¼ cups)	1 Galloon (3.78 L)

HAMA - BACTA

Area	Dilution	Water (in ml)
For cleaning of environmental surfaces (e.g. floors, walls, etc.)	20 ml	8 L
	40 ml	16 L
	60 ml	24 L
	80 ml	32 L
	100 ml	40 L

QUNEEX, TOTAL

Area	Dilution	Water
For cleaning of environmental surfaces (e.g. Floors, walls, etc.) *Do not use in steel surfaces	1 L	9 L

DETTOL

Area	Dilution	Water
For toilet **ONLY** ***Do not use in NICU**	1 L	10 L

Frequency of changing water in the bucket:

ISOLATION ROOMS: Change water after cleaning each isolation room & always last to clean.

REGULAR PATIENT ROOM: Change water after cleaning 3 rooms or as needed.

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MINISTRY OF HEALTH
GENERAL DIRECTORATE OF HEALTH AFFAIRS RIYADH
AFIF GENERAL HOSPIT

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Ministry of Health

INFECTION CONTROL DEPARTMENT

(Housekeeping)

DEPARTMENT/WARD: _____ __ MONTH/YEAR:_____

Cleaning Materials	**Date & Time**	**Toilet Area**						**Patient Area**						**Signature**		
SOAP (S)		Floor	Wall	Bowl	Sink	Faucet	Waste Bin	Bed	BS table	Wall	Floor	Window	Door	A	E	N
		(C)	(D)	(BC)	(S)	(S)	(S)	(D)	(D)	(D)	(C)	(D)	(D)			
CLOROX (C)																
BOWL CLEANER (BC)																
DISINFECTANT (D)																

Checked by:_____ ----------

HEAD NURSE CLEANER SUPERVISOR

Approved Antiseptics and Disinfectants by MOH

Surface Disinfectants

Name	Code	Composition	Unit
Naph Care Spray 	550073948	Alcohol 70%	Bottle
Hama – Surf Spray 	550073943	Quaternary ammonium Cocospropylenediamine-1,5-bisguanidiumacetate and N,N-Didecyl-N-methylpoly(oxyethyl)Ammonium Propionate	Bottle
Dry Wipes 	135280469	85% Propylene 15% Viscos	Packet
Alpron 	1266500	for the continuous maintenance of the water quality in treatment water lines (including instruments and tumbler filler) of medical and dental units. Approved by notable dental unit manufacturers, among others Dentsply Sirona	Bottle

Floor Disinfectants

Name	Code	Composition	Unit
Hama – Surf 	550073954	Concentrated Quaternary Ammonium Compounds	Galloon
Quneex,Total 	Housekeeping Supply	Sodium Hypochloride 5.25%	Bottle
Dettol 	Housekeeping Supply(**for toilet ONLY**) ***Do not use in NICU**	Chloroxylenol	Bottle
Blood and body fluids Spill Kit	137200444	Set pack body fluid (Blood,Urine & Vomit) -Non sterile gown -Non powdered Latex or vinyl gloves -Face shield -Scoop and scraper -Paper towels -Waste bag(not less than 80 micron thickness,yellow with biohazard label) -(50mg super absorbent granules)NaDCC	Piece

		-Chlorine tablets with bottle for dilution -Easy to follow illustrated instructions on pack -All contents are enclosed in plastic bag secured single usewith biohazard lable and blood spill kit clearly written on the bag(single use)	
Gento 	Housekeeping Supply	Water,non ionic Surfactant, Secondary Alcohol,Quaternary Ammonium Compound,Ethylenediaminetetraacetic Acid, Preservative, Fragrance and Color	Bottle

Surgical Instruments Disinfectants

Name	Code	Composition	Unit
BIB forte, HAMA instrument 	1226650073	Quaternary ammonium compounds	Galloon
Ortho – Phthalic Aldehyde Solution 	552033431	Orthopthadhyde solutions 0.55%	Galloon

Antiseptics

Name	Code	Composition	Unit
Antiseptic Skin Cleanser (SinAqua) 	133060718	2% Chlorhexidine	Packet
Hydrogen Peroxide 	552033440	Hydrogen Peroxide 6%(H2O2)	Bottle
Alcohol Prep Pad 	137200413	70% Isopropyl Alcohol 2% Chlorohexidine	Piece
Alcohol Gel Bed Mounted 	552033524	Ethanol 70-80%V/V, Glycerine 1%W/V, Lemon Perfume Oil 0.006%W/V, Vitamin E 0.02%	Bottle

Alcohol Gel Wall Mounted 	552033522	Ethanol 70-80%V/V, Glycerine 1%W/V, Lemon Perfume Oil 0.006%W/V, Vitamin E 0.02%	Bag
Hand washsoap 	550073956	Sodium Laureth Sulfate,Cocamidopropyl Betain,Coconut DEA,Citric Acid,Sodium Chloride,EDTA,Perfume,DMDM Hydantoin,Methylchloroisothiazolinone,Mehtylisothiazolinone & Purified water	Bag
Pocket Alcohol Gel  C	552033525	Ethanol 70-80%V/V, Glycerine 1%W/V, Lemon Perfume Oil 0.006%W/V, Vitamin E 0.02%	Piece

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
PEST CONTROL			APP-IC-025(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-025(3)	5
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To ensure preventive measures that shall be undertaken to prevent pest infestation.

1.2. To protect the health of human beings, to safeguard the environment, through safe, efficient and cost-effective methods of controlling pest.

2.0 DEFINITION (S):

2.1. ***Rodenticides*** – are defined as any substance that is used to kill rats, mice, and other rodent pests. Warfarin, Bromodiolone and Difenacoum are some examples. These substances kill by preventing normal blood clotting and causing internal hemorrhaging. Fumigants such as sulfur dioxide, carbon monoxide, hydrogen cyanide, and methyl bromide are also effective rodenticides.

2.2. Pests that most commonly infest hospitals are cockroaches, pharoah's ants, fleas, birds, rodents and cats.

3.0 POLICY STATEMENT(S):

1.1. Hospital staff and patients must know their role in Pest Management. Activities that help attract pests such as leaving snacks, piling dirty dishes in the sink or not wiping up a small drink spill should be avoided.

4.0 EQUIPMENTS /MATERIALS /FORMS:

4.1. Pest proof food containers

4.2. Hospital approved insecticides/rodenticides

4.3. Pest control spray/record book

4.4. Spray refusal form

5.0 ROLES AND RESPONSIBILITIES:

5.1. Hospital Director, All Hospital Employees, Housekeeping Members

6.0. PROCEDURE:

6.1. Basic Pest Control Measures: Healthcare staffs have a crucial role to play in the reporting of pest or stings of pests and should be aware of the system of reporting and treating infestations that occur in their place of work.

6.1.1. Food shall be covered or stored in pest proof containers.

6.1.2. Spillages shall be promptly removed.

6.1.3. Waste shall be stored in a manner suitable to prevent access to pests.

6.1.4. Doors to food preparation areas shall be kept closed.

6.1.5. Food kept in ward pantries shall be regularly checked and discarded if out of date.

6.1.6. Treatment with insecticides and rodenticides alone is seldom sufficient; therefore attention must be paid to good hygiene and structural maintenance.

6.1.7. Pests frequently appear only at night and are easily observed.

6.1.8. The sighting of a single cockroach, egg case or mouse dropping is indicative of an infestation problem.

6.2. Pest Control Spray:

6.2.1. Pest control spray in every section/area in the hospital is being done monthly.

6.2.2. A record of the procedure is being maintained and a monthly report is being submitted to the Hospital Director. Manner of the procedure should be reported whether routine or emergency.

6.2.3. For refusal of the spray if any, person refusing the procedure shall acknowledge refusal by affixing his/her signature at a designated form.

6.2.4. Schedule of the pest control spray is maintained as per working conditions in a given area- e.g. OR – it is done at 8 pm since surgeries are being done in the morning.

6.2.5. For any evidence of infestation requiring immediate action, emergency visits at the infested area and the needed action should be done and should be recorded as emergency action.

6.2.6. The company provides the pesticide, which is needed.

6.2.7. The Hospital Director has overall responsibility for the pest control policy in AGH.

6.2.8. Facility managers must know and understand the conditions that prevent pests in healthcare environment and methods to effectively manage them.

6.2.9. A supervisor for pest control services works under the support services department who is in charge of the following:

6.2.9.1. Responsible for the day to day infestation prevention.

6.2.9.2. Ensures that appropriate support is provided for the staff involved in any incident resulting from pest infestation.

6.2.9.3. Assessing requirements for and ensuring availability of personal protective equipments.

6.2.9.4. Maintains records showing the date, the infestation and the action taken and to report this on a monthly basis to the Hospital Director.

6.2.9.5. Submission of monthly report to the Infection Prevention and Control Department.

6.2.10. Reporting:

6.2.10.1. All sightings of pests or evidence of their existence shall be reported to the pest control department. The information required includes:

6.2.10.2. Location- ward, department, clinic

6.2.10.3. Possible numbers and frequency of sightings

6.2.10.4. Name of the person reporting, the date and time of sighting

6.2.10.5. Action taken/done shall be recorded.

6.2.10.6. The Contractor shall provide written report of every visit whether emergency or otherwise. This report shall detail:

i. The date and time of the visit.
ii. The type of visit i.e. routine, emergency, follow-up or job work.
iii. The locations inspected and/or treated.
iv. Any evidence of infestation including both the scientific name and general term for the pest. This applies to scheduled and non scheduled pests.
v. The type of treatment carried out including the common name of the pesticide and the amount used.
vi. Any proofing, housekeeping or hygiene recommendations to eliminate causes of infestation.
vii. Any precautions necessary to be observed by trust staff as a result of action taken by the contractor.

viii. A list of monitors and their locations

ix. Technician's signature.

x. Authorized officer's signature.

xi. The Contactors written report will also detail the pesticides applied together with any warnings or precautions to be undertaken by trust's staff in relation to the pesticides applied or work carried out.

7.0. RELATED POLICY / CROSS REFERENCES:

7.1. (pdf)Pest Control Policy and Procedure. Draft version 0.1Nov. 2008
www.wcheshirepct.nhs.uk (NHS western Cheshire)

7.2. Pest Control Policy and Procedure, National Health Safety, 2007 pp. 1610.

Pesticides. Healthcare Without Harm. Downloaded from: https://noharm-uscanada.org/issues/us-canada/pesticides

8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR S.C.# 08-RN-83	07 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	05 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No: 13-R.M.0046094	12 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Mr. [illegible] AlMutairi QM	07 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		24 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC 45-1	April 1, 2012
Replaced by	APP-IC-025(2)	April 1, 2014
Deleted	APP-IC-025(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-025(4)	April 1, 2019

Hospital Stamp

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
CONSTRUCTION/RENOVATION GUIDELINES			APP-IC-026(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-026(3)	15
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE

1.1. To ensure that the infection prevention and control risk assessment, interventions and control practices are incorporated into the planning, construction and renovation in the healthcare setting by defining the steps and precautions compliant to infection prevention and control procedures.

1.2. To eliminate infection and environmental hazards that poses danger to personnel in all patients' healthcare setting.

2.0 DEFINITION (S):

To define the steps and precautionary measures to ensure that environmental health risk assessments, interventions, and infection control practices are incorporated into the planning of construction and renovation in the healthcare setting.

2.1. ***Dumpster*** – is a large steel waste receptacle designed to be emptied into garbage trucks.

2.2. ***High Efficiency Particulate Air*** – (HEPA filter) or high efficiency particulate air filter is a type of high-efficiency air filter that can remove at least 99.97% of airborne particles, 0.3 micrometers (um) in diameter.

2.3. ***Heating, Ventilating, and Air Conditioning (HVAC) system*** which is important in the design of the building and offices where safe and health building conditions are regulated with temperature and humidity as well as fresh air from outdoors.

3.0 POLICY STATEMENT(S):

3.1. This policy applies to all construction/renovation workers within and outside any hospital or health care facilities, which include preventive maintenance on heating, ventilation and air

conditioning (HVAC) system, ventilator cleaning, filter replacement that may compromise and/or contaminate air and water supply.

4.0 EQUIPMENTS /MATERIALS /FORMS:

4.1. Dump track

4.2. Personal Protective Equipments

4.3. Hand hygiene Equipments

4.4. Waste receptacles

4.5. Disinfectant

4.6. Attachment 1: Infection Prevention & Control Construction Permit

4.7. Attachment 2. Routine Monitoring checklist for Construction / Renovation (Class I Precaution).

4.8. Attachment 3. Routine Monitoring checklist for Construction / Renovation (Class II Precaution).

4.9. Attachment 4. Routine Monitoring checklist for Construction / Renovation (Class III Precaution).

4.10. Attachment 5. Routine Monitoring checklist for Construction / Renovation (Class IV Precaution).

5.0 ROLES AND RESPONSIBILITIES:

5.1. Hospital Director

5.2. Head of Maintenance (Head Engineer)

5.3. Infection Prevention and Control Department

5.4. Support Service Officer

6.0. PROCEDURE:

6.1 Pre-Construction Preventive Measures:

6.1.1. The composition of the multidisciplinary team will include representatives from all departments.

All parties must agree on the multidisciplinary action plan.

6.1.2. Seasonal effects related to infections should be considered in the work plan of projects.

6.1.3. An Infection Control Risk Assessment Form: Construction Permit (Appendix 1) will be completed and submitted by the proponent contractors and/or maintenance staff to the IPC office prior to the commencement of any project. This permit will be posted on the door of the work site by the project management department and a copy given to Facility Management & Safety or the department head hosting the construction work.

6.1.4. The completed construction renovation follows up form (Appendix 6) will be posted on the door of the work site by IP&C personnel indicating their findings and preventive measure recommendations as per the approved construction permit.

6.1.5. The IP&C trained personnel will provide information on the following Infection Control Risk **Assessment (ICRA):**

Step 6.1.5.1: Identify the type of Construction project using Appendix 2 Determining the Type of Construction / Renovation
Step 6.1.5.2: Identify the Patient Risk Groups that might be affected using Appendix 3 (Determining the Patient Risk Groups that will be Affected by the Construction/ Renovation).
Step 6.1.5.3: Matching the Patient Risk Group (from step 2) with the type of Construction Project (from step 1) according to the IC Matrix-Class of Precautions
Step 6.1.5.4: Based on the Patient Risk group as per the previous IC matrix, use Appendix 4 Description of the Required Precautions by Class, which describes the category of infection control precautions involved during the construction project and upon completion of the project.

6.1.6. The Infection preventionist (IP) is responsible for observing and reporting any breaches in the ongoing construction and renovation activities in their assigned areas.
6.1.7. IP&C trained personnel will use the Walk-Through Assessment Form (Appendix 5) and will be responsible for:
a. Identifying issues related to ventilation, plumbing, and electrical in terms of occurrence of probable outages.
b. Identifying containment measures using prior assessment such as types of barriers (solid wall) and the need for HEPA filtration.

c. Ensuring renovation/construction area must be isolated from the occupied areas during construction and must have negative ventilation with respect to surrounding areas.
d. Considering potential risks of water damage and risks due to compromised structural integrity (i.e., walls ceiling and roof).
e. Managing working hours for the project and assess whether work can be carried out during non-patient care areas.
f. Planning to discuss the containment issues with the project team (e.g., traffic, housekeeping, waste management).

6.1.8. All contracted construction workers must be aware and trained on the health and safety risks to staff and patients during construction / renovation activities. It is the responsibility of the construction team to comply with the provisions in this policy outlined by IP&C Department.
6.1.9. Facility Management & Safety will be responsible in:
a. Establishing traffic patterns for construction workers that will avoid patient care areas.
b. Designating, if possible, an elevator to be used solely by the construction workers and ensure that the ventilation of the elevator cab and shaft is not re-circulated in the hospital.
c. Establishing a mechanism to ensure timely resolution of problems.

7.0 Preventive Measures during Construction and Renovation:

7.1. The involved hospital ward/department is responsible for addressing the needs of immunocompromised patients. They should be moved to an area away from the construction zone if the air quality cannot be assured during construction. Immunocompromised patients should wear a mask if it is necessary to transport them through or near the construction areas/zones.

7.2 Facility Management shall ensure that:

a. All windows, doors, air intake and exhaust vents are sealed in areas of the hospital adjacent to buildings that are going to be demolished including areas confining susceptible patients, to prevent air and dust leaks into patient care areas.
b. A dust barrier is created from the floor to the ceiling with the edges sealed. Plastic (for short-term projects) or sheetrock (for long-term projects) are examples of materials that can be used to seal the construction area.
c. All windows, doors, vents, plumbing penetrations, electrical outlets and any other sources of potential air leak are sealed in the construction zone. Seal all holes, pipes, conduits and punctures appropriately.
d. Negative air pressure within the construction zone should be maintained compared with adjacent areas. Air in the construction zone should be exhausted directly outside. If this is not possible, then the air should be filtered through a HEPA filter before being re-circulated in the hospital. The integrity of the HEPA filter should be assessed to ensure that it is not punctured or blocked.
e. Any unused exhaust vents in the construction area have to be capped to prevent exhausted air from being drawn back into the facility.
f. Air ducts and spaces above ceiling are vacuumed before the construction project in the involved areas is started and repeated before utilization of the area to ensure sufficient functioning. The mechanical or electrical fixtures must be cleaned before installation of ceiling tiles.

g. Work surfaces are water misted to control dust while cutting concrete wall or floor.
h. A mat with a sticky surface is placed directly outside the impermeable barrier (anteroom), to trap dust from the equipment and shoes of personnel leaving the construction zone. Change mat on a daily basis.
i. The construction zone is cleaned daily using a wet mop technique.
j. Used supplies and equipment are enclosed in covered containers when being transported out of the area to prevent spillage.
k. Debris from construction in the clinical areas should be removed using covered containers/carts by the construction workers during periods of low activity, as much as possible (i.e., after hours and visits).
l. An external chute is used if necessary, for removal of debris if construction is not taking place on ground level.
m. Faucet aerators and other obstructing and stagnating features (e.g., long pipes and plumbing dead-ends) are removed, if possible.
n. Dust suppression is maintained in outdoor construction sites.
o. Copper-8-quinolinolate formulation is considered for application to walls, doors, frames, baseboards, exterior surfaces of radiators, vents in the rooms of the construction area and above false ceilings in adjacent areas.
p. Installation of cleaned ceiling tiles is secured with silicone sealant.

q. The partition floor track is clean prior to installation of sound insulation and closing of partition.

7.3. All departments are responsible for reporting any discoloration of water promptly to maintenance and infection control personnel. Alternate water sources should be considered for patient use.

7.4. Construction workers should wear protective equipment based on the construction and renovation risk assessment and monitored by the contractor/safety personnel. These include the use of masks for any dust generating procedure. To limit dust dispersion, if there is no external non-patient area exit, construction workers must remove the protective equipment and vacuum to remove the dust from their clothing before leaving the construction zone.

7.5. All personnel entering work site are required to wear appropriate personal protective equipment (PPE) indicated by the contractor/safety personnel.

7.6. Trained personnel from IP&C will regularly visit the construction site until the project is completed to ensure all preventive measures are being adhered to, or appropriate modifications are completed if there are any on-site design changes. Any onsite observations or citations will be brought to the attention of Facility Management & Safety and IP&C Director.

7.7. Housekeeping are responsible for ensuring that adjacent areas are vacuumed daily or more frequently if needed with HEPA filtered vacuums.

7.8. Facility Management & Safety in coordination with the trained staff from IP&C will ensure adequate installation of instructions and signage.

8.0 **Post-Construction Preventive Measures**

8.1. Facility Management will be responsible for ensuring that the following procedures have been complied with:
a. Thoroughly clean construction zone, including all horizontal surfaces, before the barrier is removed, and again after the barrier is removed and before patients are readmitted to the area. Allow time for all dust to settle before doing terminal cleaning.
b. Ensure that the multidisciplinary team or designee conducts a final walk-through to ensure ventilation system is functioning properly in the constructed area and adjacent areas. Flush water lines prior to use if these were disrupted.
c. Consider hyper chlorinating stagnant potable water or superheating and flushing all distal sites before restoring or repressuring the water system if there are concerns about Legionella and Aspergillus. Refer to Prevention of Legionella in the Healthcare Setting.
d. Disinfect unused cooling towers and water supply in unoccupied portions of the buildings before they are put in use.
e. Assess hot water temperature to determine that it meets the standards set by the healthcare facility.
f. Ensure that controlled pressure rooms are maintained appropriately.

8.2. Trained personnel from IP&C and IP will inspect the finished area before barriers are removed and patients are re-admitted. An air sampling will be conducted if required.

9.0 RELATED POLICY / CROSS REFERENCES:

9.1. American Institute of Architects, Academy of Architecture for Health, Guidelines for Design & Construction of Healthcare Facilities (2006). Updated 2015 version refer to this link https://www.fgiguidelines.org/wp-content/uploads/2015/08/2001guidelines.pdf

9.2. American Society of Heating, Refrigeration, and Air Conditioning (ASHRE). ASHRE Fundamentals (1985). Updated 2013 version refer to this link https://www.ashrae.org/ resources--publications/handbook/description-of-the-2013-ashrae-handbook-fundamentals.

9.3. Association of Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 116: Construction and renovation. In APIC Text of Infection Control and Epidemiology (4th ed.).

9.4. Carter CD and Barr BA. Infection control issues in construction and renovation. Infection Control and Hospital Epidemiology (1997).Vol. 18 No. 8, pages 587- 596.

9.5. Center for Disease Control (CDC) and Healthcare Infection Control Practices Advisory Committee (HICPAC) (2003). Guidelines for environmental infection control in healthcare facilities.

9.6. Construction related Nosocomial infections for hospital patients: decreasing the risk of Aspergillosis, Legionella and other infections (2001). Laboratory Center for Disease Control (LCDC) Health Canada in Healthcare Facilities.

9.7. Infection Control Toolkit Series: Construction and Renovation (APIC) (2002) publications. gc.ca/collections/collection_2016/aspc-phac/HP3-1-27-S2-eng.pdf (2016 version)

9.8. Laboratory Center for Disease Control (LCDC) Health Canada (1996). Division of Nosocomial and Occupational Infections: Decreasing the risk of construction -related nosocomial infections for hospitalized patients.

9.9. Joint Commission International (2013). Joint Commission International Accreditation Standards for Hospitals: Including Standards for Academic Medical Center Hospitals, Standards – Only Version, 5th Edition April 2014) pp 48&57. (FMS.4ME1-3, PCI.7.5 ME 2 & 3).

إدارة الجودة
وزارة الصحة
Ministry of Health

10.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR S.C.# 00-RN-0086	06 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SCFHS: 13-E-M-0046094	11 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Mr. Khalid B. Al Mutairi QM Director	19 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		24 MAR 2019

11.0 POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC 47-1	April 1, 2012
Replaced by	APP-IC-026(2)	April 1, 2014
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Replaced by New Policy and Procedure	APP-IC-026(4)	April 1, 2019

Infection Control Risk Assessment Permit Form - Construction Permit

Type of Construction: _____	Project Start Date: _____
Construction Location: _____	Estimated Duration: _____
Project Coordinator: _____	BN #: _____ Tel. Ext.: _____
Contractor Performing Work: _____	Permit Expiration Date: _____
Supervisor: _____	BN#: _____ Tel. Ext.: _____
Mobile #: _____	Pager #:_____

YES	NO	CONSTRUCTION ACTIVITY	YES	NO	INFECTION CONTROL RISK GROUP
		Type A: Inspection, non-invasive activity			**Group 1:** Low Risk
		Type B: Small scale, short duration, moderate to high level of dust.			**Group 2:** Medium Risk
		Type C: Activity generates moderate to high levels of dust and/ or noise requires greater work shift for completion			**Group 3:** Medium / High Risk
		Type D: Major duration and construction activities requiring consecutive work shifts			**Group 4:** Highest Risk

CLASS I	1. Implement work methods to minimize dust dispersion from construction operations. 2. Immediate replace any ceiling tile displaced for visual inspection. 3. Minor demolition for remodeling. 4. Provide Safety Data Sheet (SDS) for paint and disinfectants prior to use.
CLASS II	1. Provide active means to prevent air-borne dust from dispersing into atmosphere. 2. Water mist work surfaces to control dust while cutting. 3. Seal unused doors with duct tape 4. Block off and seal air vents. 5. Wipe surfaces with disinfectant. 6. Contain construction waste before transport in tightly covered containers. Choose low traffic and route. 7. Wet mop and / or vacuum with HEPA filtered vacuum before leaving work area. 8. Place dust mat at entrance and exit of work area 9. Remove or isolate HVAC system in areas where work is being performed. 10. Provide SDS for paint and disinfectants prior to use.

CLASS III	1. Obtain Infection Control permit before construction begins. 2. Isolate HVAC system in area where work is being done to prevent contamination of the duct system 3. Complete all critical barriers or implement control cube method before construction begins. 4. Maintain negative air pressure within work site. 5. Do not remove barriers from work area until complete. 6. Vacuum work with HEPA filtered vacuums. 7. Wet mop with disinfectant. 8. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 9. Contain construction waste before transport in tightly covered containers. Choose low traffic and route. 10. Cover transport receptacles or carts. Tape covering. 11. Remove or isolate HVAC system in areas where work is being performed. 12. Provide SDS for paint and disinfectants prior to use.
CLASS IV	1. Obtain Infection Control permit before construction begins. 2. Isolate HVAC system in area where work is being done to prevent contamination of duct system. 3. Complete all critical barriers or implement control cube method before construction begins. 4. Maintain negative air pressure within work site. 5. Seal holes, pipes, conduits, and punctures appropriately. 6. Construction anteroom and require all personnel to pass through this room so they can be vacuumed using a HEPA vacuum cleaner before leaving work site or they can wear cloth or paper coveralls that are removed each time they leave the work site. 7. All personnel entering work site are required to wear shoe covers. 8. Do not remove barriers from work area until completed project is thoroughly cleaned by the Environmental Services Department. 9. Vacuum work area with HEPA filtered vacuums. 10. Wet mop with disinfectant. 11. Remove barrier

Recommended by:

Facility Management: _____ Project Management Office: _____

Permit Requested by: _____ Permit Requested by: _____

(Name & Signature)

Badge No.: _____ Badge No: _____

Date: _____ Date: _____

Approved by:

Infection Prevention & Control

Permit Approved by: _____ Badge No. _____ Date: _____

(Name & Signature)

Permit Approved by: _____ Badge No. _____ Date: _____

(Name & Signature)

Release for Occupancy by: _____ Badge No. _____ Date: _____

Appendix 2:

Determining the Type of Construction / Renovation

Type A	Inspection and non-invasive activities including, but not limited to: ▪ Removal of ceiling tiles for visual inspection limited to tile per 50 square feet ▪ Painting (but no sanding) ▪ Wall covering, electrical trim work, minor plumbing, and activities which do not generate dust or require cutting of walls or access to ceilings other than for visual inspection
Type B	Small scale, short duration activities which create minimal dust. Includes, but is not limited to: ▪ Installation of telephone and computer cabling ▪ Access to close spaces ▪ Cutting of walls or ceiling where dust migration can be controlled
Type C	Work which generates a moderate to high level of dust or requires demolition or removal of any fixed building components or assemblies. including, but not limited to: ▪ Sanding of walls for painting or wall covering ▪ Removal of floor coverings, ceiling tiles and caseworks ▪ New wall construction ▪ Minor duct work or electrical work above ceilings ▪ Major cabling activities ▪ Any activity which cannot be completed within a single work shift ▪ Painting in medium and high risk areas ▪ Moderate to high level of noise (cutting steel)
Type D	Major demolition and construction projects including, but not limited to: ▪ Activities which require consecutive work shifts ▪ Requires heavy demolition or removal of a complete cabling system ▪ New construction

Appendix 3:
Determining Patient Risk Groups that will be Affected by the Construction / Renovation

Group 1 Low Risk	▪ Office areas ▪ Non-patient areas
Group 2 Medium Risk	▪ Patient areas not listed in Groups 3 or 4 ▪ Materials management ▪ Physical therapy / occupational therapy / speech therapy ▪ Admission / discharge ▪ Public corridors (thoroughfare for patients, and supplies) ▪ Laboratories not specified in Group 3 ▪ Echocardiography ▪ Nuclear medicine ▪ MRI ▪ Respiratory therapy ▪ Cafeteria ▪ Dietary
Group 3 High Risk	▪ Critical care units (CCU) ▪ Emergency room ▪ Radiology ▪ Labor and delivery ▪ Microbiology / Virology laboratories ▪ Intensive care units (ICU) ▪ Intermediate care nursery ▪ Newborn nursery ▪ Long term / sub-acute units ▪ Dialysis ▪ Endoscopy ▪ Outpatient surgery ▪ Pediatrics ▪ Pharmacy ▪ Post-anesthesia care unit ▪ Surgical units
Group 4 Highest Risk	▪ Any area caring for immunocompromised patients ▪ Burn unit ▪ Cardiovascular intensive care unit (CVICU) ▪ Cardiac ▪ Catheterization ▪ Angiography areas ▪ Central sterile supply / processing areas ▪ Pharmacy admixture ▪ Negative pressure isolation rooms ▪ Oncology ▪ Radiology oncology suite ▪ Anesthesia and pump areas ▪ Operating rooms

IC Matrix - Class of Precautions: Construction Project by Patient Risk

	Construction Project Type			
Patient Risk Group	**A**	**B**	**C**	**D**
Low Risk	I	II	II	III/IV
Medium Risk	1	II	II	IV
High Risk	I	II	III/IV	IV
Highest Risk	I	III/IV	III/IV	IV

Appendix 4:

Description of the Required Precautions by Class

	During Construction Project	Upon Completion of Project
CLASS I	1. Implement work by methods to minimize dust dispersion from construction operations. 2. Immediately replace ceiling tiles displaced for visual inspection. 3. Provide Safety Data Sheet (SDS)	1. Clean work area upon completion of task.
CLASS II	1. Provide active means to prevent airborne dust from dispersing into the atmosphere. 2. Water mist work surfaces to control dust while cutting. 3. Seal unused doors with duct tape. 4. Block off and seal air vents. 5. Place dust mat at entrance and exit of work area. 6. Remove or isolate HVAC system in areas where work is being performed. 7. Provide SDS for paint and disinfectants prior to use	1. Wipe work surfaces with hospital approved disinfectant. 2. Contain construction waste prior to transportation in tightly covered containers. Select low traffic time and route. 3. Wet mop and/or vacuum with HEPA filtered vacuum before leaving work area. 4. Remove isolation of HVAC system in areas where work has been performed
CLASS III	1. Remove or isolate HVAC system in areas where work is being done to prevent contamination of duct system. 2. Complete all critical barriers such as sheetrock, plywood, plastic to seal area from non-work area or implement control cube method (cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) before construction begins. 3. Maintain negative air pressure within work site. 4. Contain construction waste before transport in tightly covered containers. Choose low traffic time and route.	1. Do not remove barriers from work area until project is inspected by IP&C-EHOHS, as well as, thoroughly cleaned by the construction workers and the Environmental Services department. 2. Remove barrier materials carefully to minimize spread of dirt and debris associated with the construction. 3. Vacuum work area with HEPA filtered vacuums. 4. Use wet mop with disinfectant. 5. Remove isolation of HVAC system in areas where work is being performed

	5. Cover transport receptacles or carts. Tape covering unless solid lid. 6. Provide SDS for paint and disinfectants prior to use.	
CLASS IV	1. Isolate HVAC system in area where work is being done to prevent contamination of duct system. 2. Complete all critical barriers such as sheetrock, plywood, plastic to seal area from non-work area or implement control cube method (cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) before construction begins. 3. Maintain negative air pressure within work site. 4. Seal holes, pipes, conduits, and punctures appropriately. 5. Construct anteroom and require all personnel to pass through this room which can be vacuumed with HEPA vacuum cleaner before leaving work site or they can wear cloth or paper coveralls that are removed each time they leave the work site. 6. All personnel entering the work site are required to wear shoe covers. Shoe covers must be changed each time the work exits the work area. 7. Do not remove barriers from work area until project is completed and inspected by the IP&C and thoroughly cleaned by the Environmental Services department. 8. Provide SDS for paint and disinfectants prior to use.	1. Remove barrier materials carefully to minimize spread of dirt and debris as a result of construction activities. 2. Contain construction waste before transport in tightly covered containers. 3. Cover transport receptacles or carts. Tape covering unless solid lid. 4. Vacuum work area with HEPA filtered vacuums. 5. Use wet mop with disinfectant. 6. Remove isolation of HVAC system in areas where work has been performed.

إدارة الجودة
وزارة الصحة
Ministry of Health

Follow-Up for Construction Permit

Date of Follow-Up Rounds	
Conducted: Location:	
Permit #:	
Findings	
Recommendation	
Inspected by: **Signature:**	IP & C
Director: **Signature:**	IP &

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
AIRBORNE ISOLATION PRECAUTIONS			APP-IC-027(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-027(2)	3
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To reduce the risk of airborne transmission infectious agents (e.i. Measles, Varicella and Pulmonary Mycobacterium Tuberculosis [PMTB])

2.0 DEFINITION (S):

2.1. Airborne Isolation – used when patient is suspected or confirmed to have any other diseases listed in "Type and Duration of Precautions Recommended for Selected Infections and Conditions".

3.0 POLICY STATEMENT(S):

3.1. In addition to Standard Precautions, Airborne Precautions are required for patients with diseases that are highly communicable by the airborne route.

4.0. EQUIPMENTS /MATERIALS /FORMS:

4.1. Hand hygiene facilities

4.2. Personal Protective Equipment

5.0. ROLES AND RESPONSIBILITIES:

5.1. N/A

6.0. PROCEDURE:

6.1. Initiate and maintain airborne isolation precautions when there is suspected or confirmed diagnosis of infectious diseases that is transmitted by the airborne route. Refer to "Type and Duration of Precautions Recommended for Selected Infections and Conditions"

6.2. Place patient in a single room with negative air pressure system.

6.3. Put the airborne isolation sign on the door. DOOR MUST BE KEPT CLOSED AT ALL TIMES.

6.4. Notify Infection Control that is in isolation.

6.5. Maintain Standard Precautions with all patient care activities.

6.6. PPE must be readily available for use.

6.7. Wear a respiratory protection (N95 respirator) before entering the room of patient with Pulmonary MTB.

- 6.7.1. Fit testing should be done for staff before wearing N95 masks.
- 6.7.2. Remove the mask when outside the room.

6.8. Management of patient

- 6.8.1. Restrict patient movement outside room during the infectious period.
- 6.8.2. When transferring patients the receiving department/facility (e.g. x-ray) must be informed of patient isolation status to permit implementation of proper precautions.
- 6.8.3. Place a surgical mask on the patient if he/she is to leave the room.
- 6.8.4. Encourage the patient to observe strict hand hygiene with personal hygiene.

6.9. Explain the purpose of precautions to the patient and visitors in order to solicit their cooperation.

6.10. Check with visitors and staff for their immune status to the disease and instruct them regarding use of protective apparel and conduct in isolation room.

6.11. Discontinue isolation precautions and in consultation with Infection Control.

7.0. RELATED POLICY / CROSS REFERENCES:

7.1. N/A

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8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR	05 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR	07 MAR 2019
	Mr. Khalid Bandar Khalid Al Metairi	Quality Director	QM Director	09 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		14 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC 50-1	April 1, 2012
Replaced by	APP-IC-027(2)	April 1, 2014
Deleted	APP-IC-027(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-027(4)	April 1, 2019

وزارة الصحة
Ministry of Health
الإدارة العامة لمكافحة عدوى المنشآت الصحية
General Directorate for Infection prevention and Control

TRANSPORTATION CARD

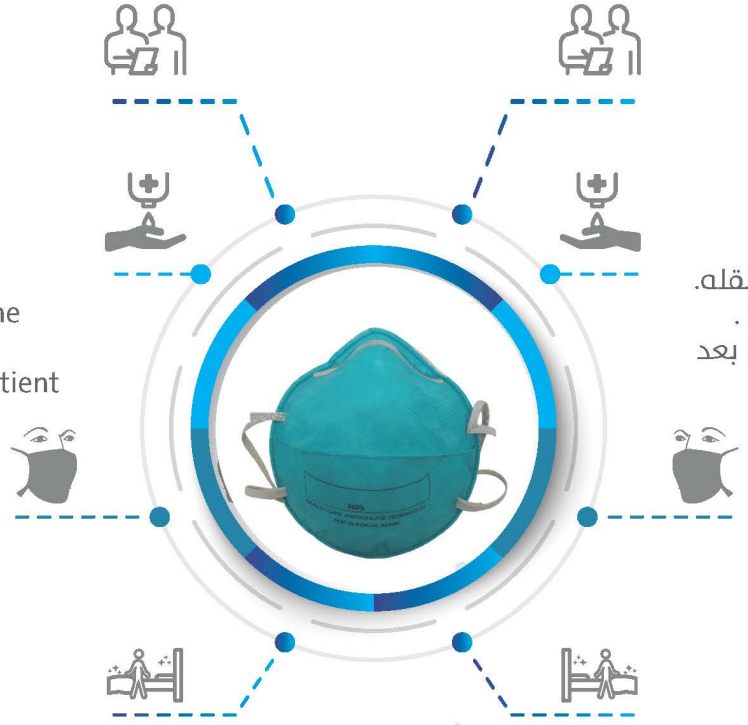
AIRBORNE PRECAUTIONS العزل الهوائي

1. Notify the receiving unit/ward/department (Diagnosis, Type of Isolation Precautions).

2. **Prepare the patient for transportation :**
   - Patient should wear surgical mask.
   - Educate the patient about respiratory hygiene (Cough Etiquette).
   - HCW should perform hand hygiene after patient transport.

3. If the patient can not tolerate wearing a **surgical mask**, during transportation healthcare workers should wear the fitted **N95 respirator**.

4. Staff should disinfect the patient bed/ wheeled chair using MOH approved disinfectant.



Use N95 respirator

1. ابلاغ القسم المستلم (التشخيص - نوع العزل) .

2. **يجب أن يتم تحضير المريض للنقل كما يلي:**
   - أن يستخدم المريض الكمام الجراحي العادي أثناء نقله.
   - تثقيف المريض عن العناية التنفسية (آداب السعال) .
   - يجب على الممارس الصحي ممارسة نظافة الايدي بعد الإنتهاء من نقل المريض .

3. فى حاله عدم امكانية إرتداء المريض للكمام الجراحي الطبي العادي يجب على الممارس الصحي استخدام الكمام التنفسي عالي الكفاءة (N95) أثناء عملية النقل .

4. يجب على الممارس الصحي تطهير السرير أو الكرسي المتحرك المستخدم لنقل المريض بعد النقل باستخدام المطهرات المعتمدة في وزارة الصحة.



وزارة الصحة
Ministry of Health
الإدارة العامة لمكافحة عدوى المنشآت الصحية
General Directorate for Infection Control of Health Facilities

احتياطات العزل الهوائي
AIRBORNE PRECAUTIONS

يجب على الزوار مراجعة مكتب التمريض قبل الزيارة
VISITORS : Report to nurse's station before entring the room

على جميع الممارسين الصحيين و الزوار اتباع التالي:

All HCWs and visitors must do the following:

قبل دخول الغرفة :
1- ممارسة نظافة الايدي.
2- ارتداء الكمام التنفسي عالي الكفاءة .

Before patient room entry :
1- Practice hand hygiene .
2- Wear N95 respirator .



قبل الخروج من غرفة المريض :
1- يتم خلع مستلزمات الوقاية الشخصية ماعدا الكمام التنفسي عالي الكفاءة والتخلص منها في حاوية النفايات الطبية .

Before exit from patient room :
1- All personal protective equipment must be removed except N95 respirator and discarded as medical waste.

بعد الخروج من غرفة المريض :
1- يتم خلع الكمام التنفسي عالي الكفاءة والتخلص منه في حاوية النفايات الطبية .
2- ممارسة نظافة الايدي.

After exit from patient room :
1- Remove N95 respirator and discard as medical waste.
2- Practice hand hygiene .

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
DROPLET ISOLATION PRECAUTIONS			APP-IC-028(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-028(3)	3
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To reduce the risk of droplet transmission of infectious agents from close respiratory or mucous membrane contact (e.g. <3 feet) with large-particle droplets (larger than 5µm) generated by coughing, sneezing, talking or performing procedures such as tracheal suctioning.

2.0 DEFINITION (S):

2.1. N/A

3.0 POLICY STATEMENT(S)

3.1. In addition to Standard Precautions, Droplet Precautions are required for patients with diseases that are highly communicable by the droplet route.

4.0 EQUIPMENTS /MATERIALS /FORMS:

4.1. Hand hygiene facilities

4.2. Personal Protective Equipment

5.0 ROLES AND RESPONSIBILITIES:

5.1. N/A

6.0. PROCEDURE:

6.1. Initiate and maintain droplet isolation precautions when there is suspected or confirmed diagnosis of infectious diseases that is transmitted by the droplet route. Refer to "Type and Duration of Precautions Recommended for Selected Infections and Conditions".

6.2. Place patient in a single room. Negative air pressure room is not necessary.

6.3. Put the droplet isolation sign on the door.

6.4. Notify Infection Control that is in isolation.

6.5. Maintain Standard Precautions with all patient care activities. When possible assign non-critical patient care equipment (e.g. stethoscope, pressure cuff, etc) to use only in the isolation room.

6.6. PPE must be readily available for use.

6.7. Strict hand hygiene is the most important means of preventing or reducing the transmission of microorganisms (droplets) that settle on the surfaces in the patient care area.

6.8. Use surgical mask when anticipating being within 3 feet of the patient.

6.9. Management of patients:

- 6.9.1. Restrict movement of patient for the duration of the infectious period if possible)
- 6.9.2. When transferring patient the receiving department / facility (e.g. xray) must be informed of patient isolation status to permit implementation of proper precautions.
- 6.9.3. Place a surgical mask on the patient if he/she in to leave the room.
- 6.9.4. Encourage the patient to observe strict hand hygiene with personal hygiene.

6.10. Explain the purpose of precautions to the patient and visitors in order to solicit their cooperation.

6.11. Discontinue droplet isolation precaution as per Infection Control policies

7.0. RELATED POLICY / CROSS REFERENCES:

7.1. N/A

8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR Sc. # 06-RN-8536	5 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	3 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR	7 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Khalid Al Mutairi	9 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		14 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC 51-1	April 1, 2012
Replaced by	APP-IC-028(2)	April 1, 2014
Deleted	APP-IC-028(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-028(4)	April 1, 2019



وزارة الصحة
Ministry of Health
الإدارة العامة لمكافحة عدوى المنشآت الصحية
General Directorate for Infection Control of Health Facilities

احتياطات العزل الرذاذي
DROPLET PRECAUTIONS

يجب على الزوار مراجعة مكتب التمريض قبل الزيارة
VISITORS : Report to nurse's station before entring the room

على جميع الممارسين الصحيين و الزوار اتباع التالي:

All HCWs and visitors must do the following:

قبل دخول الغرفة أو منطقة المريض:

1- ممارسة نظافة الأيدي.

2- ارتداء الكمام الجراحي العادي .

before patient room or care area entry :

1- Practice hand hygiene .

2- Wear a surgical Mask .



قبل الخروج من غرفة المريض أو منطقة المريض:

1- يتم خلع الكمام الجراحي العادي والتخلص منه في حاوية النفايات الطبية .

2- ممارسة نظافة الأيدي.

before exit from patient room or care area :

1- Surgical Mask must be removed and discarded as medical waste.

2- Practice hand hygiene .

وزارة الصحة
Ministry of Health
الإدارة العامة لمكافحة عدوى المنشآت الصحية
General Directorate for Infection prevention and Control

TRANSPORTATION CARD

DROPLET PRECAUTIONS العزل الرذاذي

1 Notify the receiving unit/ward/department (Diagnosis, Type of Isolation Precautions).

2 **Prepare the patient for transportation :**

- Patient should wear a surgical mask.
- Educate the patient about respiratory hygiene (Cough Etiquette).
- HCW should perform hand hygiene after patient transport.

3 If the patient can not tolerate wearing a **surgical mask**, HCW should wear a surgical mask during transportation.

4 Staff should disinfect the patient bed/ wheeled chair using MOH approved disinfectant.



Use surgical or medical masks

1 ابلاغ القسم المستلم (التشخيص - نوع العزل).

2 **يجب أن يتم تحضير المريض للنقل كما يلي:**

- أن يستخدم المريض الكمام الجراحي العادي أثناء نقله.
- تثقيف المريض عن العناية التنفسية (آداب السعال).
- يجب على الممارس الصحي ممارسة نظافة الايدي بعد الإنتهاء من نقل المريض.

3 يجب على الممارس الصحي استخدام الكمام الجراحي العادي أثناء عملية النقل فى حاله عدم امكانية إرتداء المريض للكمام الجراحي الطبي العادي.

4 يجب على الممارس الصحي تطهير السرير أو الكرسي المتحرك المستخدم لنقل المريض بعد النقل باستخدام المطهرات المعتمدة في وزارة الصحة.

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
CONTACT ISOLATION PRECAUTIONS			APP-IC-029(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-029(3)	3
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To reduce the risk or transmission of epidemiologically important microorganisms by direct or indirect contact with the patient and/or patient environment.

2.0 DEFINITION (S):

2.1. N/A

3.0 POLICY STATEMENT(S):

3.1. Contact precautions are used in conjunction with standard precautions. Patient diagnosed with the same microorganism can be placed in the same room (cohort) assuming that no other infection is present.

4.0 EQUIPMENTS /MATERIALS /FORMS:

4.1. Hand hygiene facilities

4.2. Personal Protective Equipment

5.0. ROLES AND RESPONSIBILITIES:

5.1. N/A

6.0. PROCEDURE:

6.1. Initiate and maintain droplet isolation precautions when there is suspected or confirmed diagnosis of infectious diseases that is transmitted by the contact route. Refer to "Type and Duration of Precautions Recommended for Selected Infections and Conditions".

6.2. Maintain standard precautions with all patient care activities.

6.3. Place patient in a single room. Only neutral room air pressure is indicated.

6.4. Put contact isolation sign on the door.

6.5. Notify Infection Control Staff that patient is placed in contact isolation. When possible assign non-critical patient care equipment to use only in the isolation room.

6.6. PPE must be readily available for use.

6.7. Strict hand hygiene is the most important means of preventing or reducing contact transmission of microorganisms.

6.8. Wear gown and gloves when anticipating contact with patient or before entering patient environment.

6.9. Management of patients:

6.9.1. Restrict internal and external movement of patient (change bed location).

6.9.2. When transferring patient the receiving department / facility (e.g. x-ray) must be informed of patient isolation status to permit implementation of proper precautions.

6.9.1.1. Patient body fluids must be contained wound covered, etc.

6.9.1.2. Equipment (wheelchairs, stretchers) used must be cleaned before use on other patients.

6.9.3. Encourage the patient to observe strict hand hygiene with personal hygiene.

6.9.4. Explain the purpose of precautions to the patient and visitors in order to solicit their cooperation.

6.10. Discontinue isolation precautions as per IC Policies and Procedures

7.0. RELATED POLICY / CROSS REFERENCES:

7.1. N/A

8.0.APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control head	DR. SHER AGHA	3 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR Sc. # 06-NN-8386	5 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	3 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR	7 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Mr. Khalid B. AlMutairi Quality Director	9 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		4 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC 52-1	April 1, 2012
Replaced by	APP-IC-029(2)	April 1, 2014
Deleted	APP-IC-029(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-029(4)	April 1, 2019

وزارة الصحة
Ministry of Health
الإدارة العامة لمكافحة عدوى المنشآت الصحية
General Directorate for Infection prevention and Control

TRANSPORTATION CARD

CONTACT PRECAUTIONS العزل التلامسي

1 Notify the receiving unit/ward/department (Diagnosis, Type of Isolation Precautions).

2 **Prepare the patient for transportation :**

- Dress wounds with impervious dressings.
- Dress the patient in a clean gown.
- Cover patient with clean sheet.
- HCW should wear clean gloves and perform hand hygiene after taking off .

3 Staff should disinfect the patient's bed / wheeled chair using MOH approved disinfectant.



Use clean gloves

1 إبلاغ القسم المستلم (التشخيص - نوع العزل).

2 **يتم تحضير المريض للنقل كما يلي:**

- تغطية جروح المريض بضماد غير منفذ للسوائل.
- إرتداء المريض لرداء طبي نظيف.
- تغطية المريض بملاءة نظيفة.
- يجب على الممارس الصحي إرتداء القفازات النظيفة ونزعها بعد الإنتهاء من نقل المريض وممارسة تطهير الأيدي.

3 يجب على الممارس الصحي تطهير السرير/ الكرسي المتحرك المستخدم لنقل المريض بعد النقل باستخدام المطهرات المعتمدة بوزارة الصحة.



وزارة الصحة
Ministry of Health
الإدارة العامة لمكافحة عدوى المنشآت الصحية
General Directorate for Infection Control of Health Facilities

إحتياطات العزل التلامسي
CONTACT PRECAUTIONS

يجب على الزوار مراجعة مكتب التمريض قبل الزيارة
VISITORS : Report to nurse's station before entring the room

All HCWs and visitors must do the following:

على جميع الممارسين الصحيين و الزوار اتباع التالي:

before patient room or care area entry :

1- Practice hand hygiene .
2- Wear isolation gown and gloves.

قبل دخول الغرفة او منطقة المريض:

1- ممارسة نظافة الايدي.
2- ارتداء مريول العزل و القفازات .



before exit from patient room or care area :

1- Remove gown and gloves and discard as medical waste.
2- Practice hand hygiene .

قبل الخروج من غرفة المريض أو منطقة المريض:

1- يتم خلع مريول العزل والقفازات والتخلص منها في حاوية النفايات الطبية .
2- ممارسة نظافة الايدي.

الإدارة العامة لمكافحة عدوى المنشآت الصحية
General Directorate for Infection prevention and Control

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
INITIATING AND DISCONTINUING ISOLATION			APP-IC-030(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-030(3)	3
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To provide guidelines on the process of initiating and discontinuing isolation precautions on patients with a confirmed or suspected infectious disease that carries a risk of healthcare associated infection transmission

2.0 DEFINITION (S):

2.1. N/A

3.0 POLICY STATEMENT(S):

3.1. Standard precautions must always be observed while delivering direct patient care. Appropriate isolation sign must be place on the doors.

4.0 EQUIPMENTS /MATERIALS /FORMS:

4.1. Hand hygiene facilities

4.2. Personal Protective Equipment

5.0 ROLES AND RESPONSIBILITIES:

5.1. N/A

6.0. PROCEDURE:

6.1. Physicians

6.1.1. Identify patients with either suspected or confirmed infectious status. Where possible, this information should be available on the patient's chart on admission or as soon as the infection becomes apparent.

6.2. Nurses

6.2.1. Confer with physician(s) regarding infectious diseases suspected/diagnosed.

6.2.2. Notify Infection Control staff for assistance regarding type of isolation.

6.2.3. Request appropriate single room.

6.2.4. Place patient in appropriate room (some patients with the same infection can be cohorted, infection control staff will advise).

6.2.5. Place appropriate isolation sign outside the door of the patient's room.

6.2.6. Provide the required PPE needed for caring for patient in isolation.

6.2.7. Ensure that appropriate Expanded Precautions are maintained for duration of the infectivity of the patient.

6.2.8. Notify Ministry of Health.

6.2.9. Discontinue isolation in consultation with the infection control staff.

6.2.10. Request Housekeeping staff should carry out terminal cleaning of isolation room.

6.2.11. Return reusable items to CSSD for reprocessing.

6.2.12. Ensure cleaning and storage of other items/equipment as necessary.

6.3. Infection Control Staff

6.3.1. Consult with nursing staff regarding type of isolation.

6.3.2. Monitor patient's condition (review laboratory reports and patient's chart)

6.3.3. Confer with attending physician regarding patient's clinical assessment

7.0. RELATED POLICY / CROSS REFERENCES:

1. Interim Guidance on Infection Control Measures for 2009: H1N1 Influenza in Healthcare Settings, Including Protection of Healthcare Personnel. July 2010.
2. Siegel JD, Rhinehart E, Jackson M, Chiarello L. The Healthcare Infection Control Practices Advisory Committee (HICPAC) 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings.

8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr.Sher Agha	Head of IP&C	DR. SHER AGHA	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LINAN NURSING DIRECTOR	07 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SCFHS No: 13-R-M-0046094	12 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Mr. Khalid E. AlMutairi QM Director	17 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		24 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC 53-1	April 1, 2012
Replaced by	APP-IC-030(2)	April 1, 2014
Deleted	APP-IC-03(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-030(4)	April 1, 2019

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
SINGLE ROOM USE FOR ISOLATION PRECAUTIONS			APP-IC-031(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-031(3)	4
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To provide guidelines on appropriate use of single room for isolation.

2.0 DEFINITION (S):

2.1. N/A

3.0 POLICY STATEMENT(S):

3.1. Appropriate patient placement is an important component of isolation precautions.

3.1.1. Provide a physical barrier between patient infected or colonized with epidemiologically significant microorganisms.

3.1.2. Remind personnel and visitors to observe infection control measures.

3.2. Consult with the Infection Control Staff to verify proper patient placement as necessary.

4.0. EQUIPMENTS /MATERIALS /FORMS:

4.1. Hand hygiene facilities

4.2. Personal Protective Equipment

4.3. Isolation signs

5.0. ROLES AND RESPONSIBILITIES:

5.1. N/A

6.0. PROCEDURE:

6.1.1. Use single room with hand hygiene and toilet facilities for isolation purposes.

6.1.2. Use single room with negative pressure for Airborne Isolation precautions.

6.1.3. Post the appropriate isolation sign on the door to indicate the isolation precautions(s) category required.

6.1.4. Place the necessary PPE outside the single isolation room.

6.1.5. Consult with Infection Control if there is a need to cohort patients with identical organisms/disease.

6.2. Indication for Single Room

6.2.1. Refer to "Type and Duration of Precautions Recommended for Selected Infections and Conditions" to initiate isolation by type of suspected/diagnosed infection or infectious disease.

6.2.2. Patient is placed in single room for the duration of communicability/infectious period of the disease.

6.2.3. When a patient is unable to comply with basic hygiene and infection control practices.

6.3. Admission Process

6.3.1. Attending physician documents confirmed or suspected infectious status of patient that requires isolation.

6.3.2. Admitting wards (OPD, ER) notifies Infection Control.

6.3.3. Infection Control Staff will confer to determine need for single room.

6.3.4. The receiving ward and admission office shall notify infection control staff when a patient is placed in single room isolation.

6.3.5. If a single room, in an off-service ward is utilized, the concerned department shall transfer the patient to the appropriate service ward as soon as the required room becomes available.

6.3.6. The infection control staff shall assess monitor patient's progress and advise when isolation in a single room should be discontinued.

6.3.7. The ward staff shall notify Infection Control when isolation is discontinued.

7.0. RELATED POLICY / CROSS REFERENCES:

Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 29: Isolation precautions. In APIC Text of infection control and epidemiology (4th ed.).

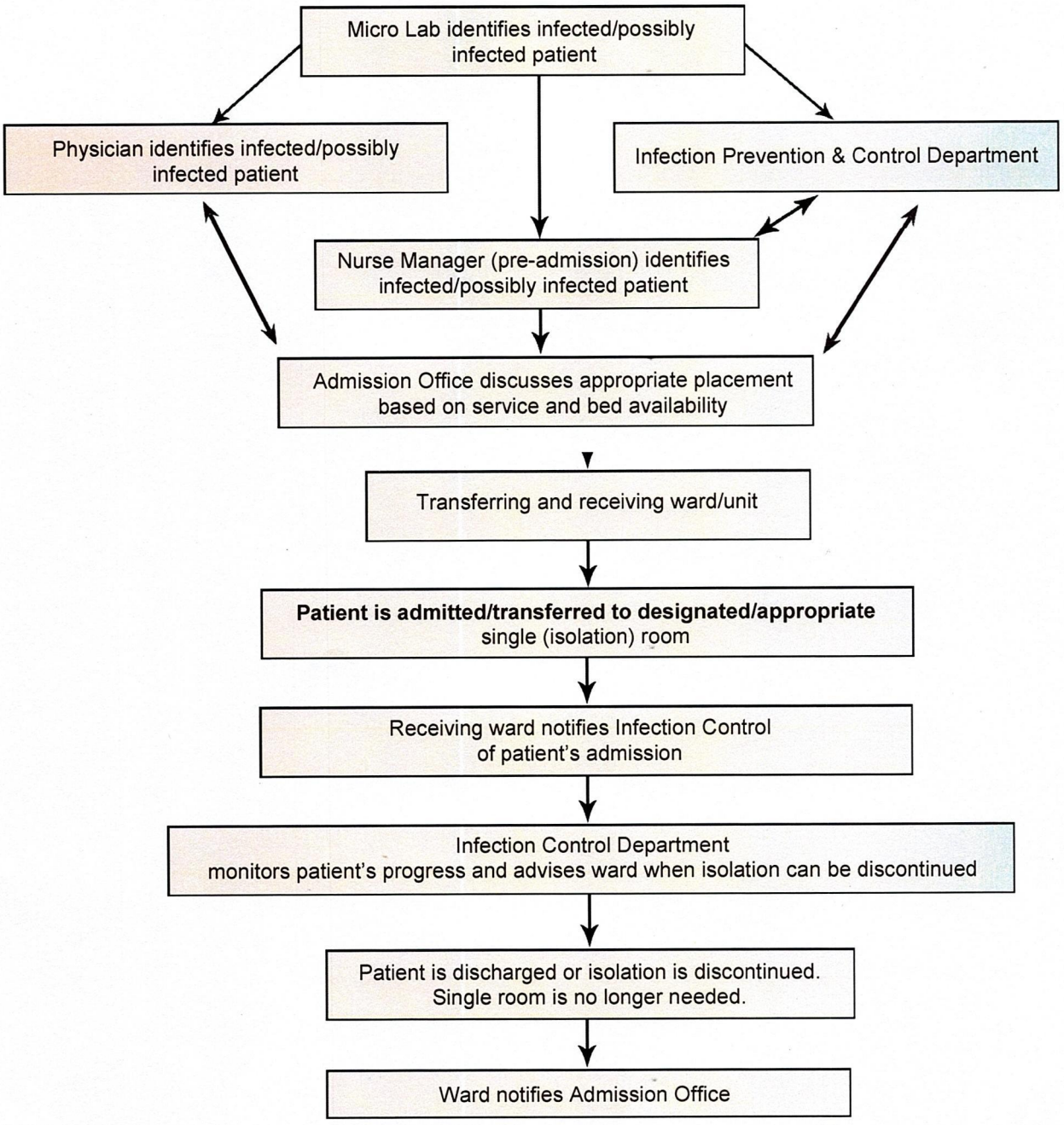
8.0. APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control head	DR. SHER AGHA	3 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR S.C.# 06-RN-8386	6 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	3 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No: 12-R-M-0075094	11 MAR 2019
	Mr. Khalid Bandar Khalid Almutairi	Quality Director		9 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		14 MAR 2019

9.0. POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC 54-1	April 1, 2012
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Deleted	APP-IC-031(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-031(4)	April 1, 2019

Infection Control Protocol for the Use of Single Rooms for Isolation



ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
PREVENTION OF SURGICAL SITE INFECTIONS			APP-IC-032(4)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-032(3)	13
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		OPERATING ROOM, SURGICAL WARDS, OB-GYNE AND SURGERY OUT PATIENT DEPARTMENT	

1.0 PURPOSE:

1.1. To reduce the risk and incidence of surgical site infections by following evidence-based guidelines.

2.0 KEY TERMS:

Before defining the three categories of SSI, let's review a few key terms from the Introduction to Procedure associated module and introduce a few more.

- NHSN Operative Procedure
- Date of Event
- Primary Closure
- Non-Primary Closure
- Surgeon or Attending Physician
- Present at Time of Surgery (PATOS)

Please note that key terms that have been defined in other NHSN/HESN (e.g. CLABSI, CAUTI) including Infection Window Period, Present on Admission (POA), Healthcare-associated Infection (HAI), and Repeat Infection Timeframe (RIT) DO NOT apply to SSI!

2.1 NHSN Operative Procedure:

An NHSN Operative Procedure is a Procedure:

- that is included in NHSN operative procedure code mapping

And

•takes place during an operation where at least one incision (including laparoscopic approach) is made through the skin or mucous membrane, or reoperation via an incision that was left open during a prior operative procedure

And

- takes place in an operating room (OR), defined as a patient care area that met the Facilities Guidelines Institute (FGI) or American Institute of Architects' (AIA) criteria for an operating room when it was constructed or renovated. This may include an operating room, C-section room, interventional radiology room, or a cardiac catheterization lab.

2.2 Date of Event:

For an SSI, the date of event is the date when the first element used to meet the SSI infection criterion occurs for the first time during the surveillance period.
SSIs can progress to a deeper level during surveillance period. SSIs are ALWAYS reported at the deepest level that they can occur within the surveillance period.

Therefore, if during the surveillance period a patient's initial SSI meets criteria for a deeper level, then the date of event should be the date for the deepest level.

2.3 Primary Closure:

Closure of the skin level during the original surgery, regardless of the presence of wires, wicks, drains, or other devices or objects extruding through the incision e.g. surgeries where the skin is closed by some means .
If any portion of the incision is closed at the skin level, by any manner, a designation of primary closure should be assigned to the surgery.
NOTE: If a procedure has multiple incision/laparoscopic trocar sites and any of the incisions are closed primarily, then the procedure is entered as having been closed primarily.

2.4 Non-Primary Closure:

A Closure that is other than primary and includes surgeries in which the skin level is left completely open during the original surgery and therefore cannot be classified as having primary closure.

For surgeries with non-primary closure, the deep tissue layers may be closed by some means (with the skin level left open), or the deep and superficial layers may both be left completely open.

2.5 Surgeon or Attending Physician:

The term attending physician for the purposes of application of the NHSN SSI criteria may be interpreted to mean the surgeon(s), infectious disease doctor, other physician on the case, emergency physician or physician's designee (nurse practitioner or physician's assistant).

2.6 BSI Secondary to an SSI:

Secondary BSI Attribution Period for SSI is a 17-day period that includes the date of event, 3 days prior and 13 days after.

Why does SSI have its own secondary BSI attribution period?

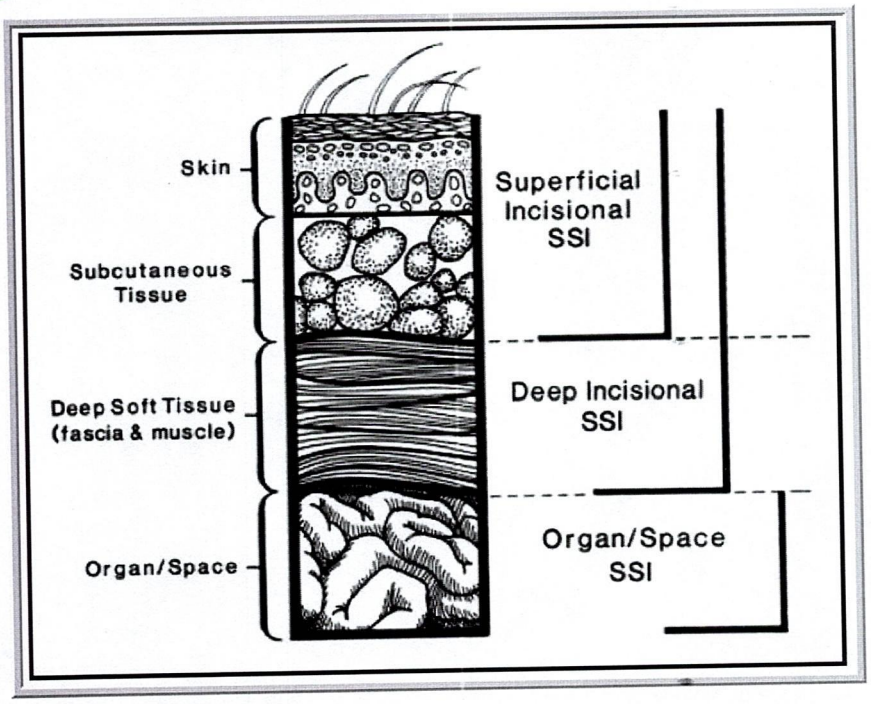
For other HAIs, the Secondary BSI attribution period is determined by the infection window period and the RIT. These two definitions do not apply to SSIs.

2.7 Infection Present at Time of Surgery PATOS:

Infection present at time of surgery (PATOS) denotes that there is evidence of an infection present at the time of the start of or pre-operatively.

3.0 DEFINITION (S):

Three categories of SSI that are defined by CDC. Each SSI definition is related to the tissue depth of the infection.



4.0 Types of SSI:

There are multiple tissue levels involved in infection. The type of SSI (superficial incisional, deep incisional, and organ/space) reported should reflect the deepest tissue layer involved in the infection during the surveillance period.

4.1 Superficial Incisional SSI:

Infection occurs **within 30 days** after any NHSN operative procedure, day one is procedure date

AND

involves only skin and subcutaneous tissue of the incision

AND

patient has at least **one of the following**:

a. purulent drainage from the superficial incision.

b. organisms isolated from an aseptically-obtained culture from the superficial incision or subcutaneous tissue.

c. superficial incision that is deliberately opened by a surgeon, attending physician* or other designee and is culture positive or not cultured

AND

patient has at least one of the following signs or symptoms: **pain or tenderness; localized swelling; redness; or heat.**

A culture negative finding does not meet this criterion.

d. diagnosis of a superficial incisional SSI by the surgeon or attending physician or another designee.

4.1.1 **There are two specific types of superficial SSIs:**

1 .Superficial Incisional Primary (SIP): in the primary incision in a patient that has had an operation with one or more incisions (e.g., C-section incision or chest incision for Coronary Artery Bypass Graft [CBGB]).

2. Superficial Incisional Secondary (SIS): in the secondary incision in a patient that has had an operation with more than one incision (e.g., donor site [leg] incision for CBGB

Do not qualify as criteria for meeting the NHSN definition of superficial SSI:

- Diagnosis/treatment of cellulitis (redness/warmth/swelling), by itself, does not meet criterion for superficial incisional SSI. An incision that is draining or culture (+) is not considered a cellulitis.
- A stitch abscess alone (minimal inflammation and discharge confined to the points of suture penetration) is not considered an SSI.
- A localized stab wound or pin site infection. While it would be considered either a skin (SKIN) or soft tissue (ST) infection, depending on its depth, it is not reportable under this module.
- A laparoscopic trocar site for an NHSN operative procedure is not considered a stab wound.

4.2 Deep Incisional SSI:

Infection occurs within **30 or 90 days** after the NHSN operative procedure (where day 1=the procedure date) AND

involves deep soft tissues of the incision (e.g., fascial and muscle layers)

AND

Patient has at **least one of the following:**

a. Purulent drainage from the deep incision.

b. A deep incision that spontaneously dehisces or is deliberately

- opened by a surgeon, attending physician or other designee and is
- culture-positive or not cultured

AND

- patient has at least one of the following signs of symptoms:
- **fever; localized pain or tenderness**. A culture-negative finding does not meet this criterion.

c. an abscess or other evidence of infection involving the deep incision that is detected on gross **anatomical or histopathologic examination, or imaging test.**

4.2 Types of deep incisional SSIs:

1 .Deep Incisional Primary (DIP): in a primary incision in a patient that has had an operation with one or more incisions (e.g., C-section incision or chest incision for Coronary Artery Bypass Graft [CABG]).

2. Deep Incisional Secondary (DIS): in the secondary incision in a patient that has had an operation with more than one incision (e.g., donor site [leg] incision for CABG).

4.3 **Organ/Space SSI:**
Infection occurs within 30 or 90 days after the NHSN operative procedure (where day 1 = the procedure date)
AND
Infection involves any part of the body deeper than the fascial/muscle layers, that is opened or manipulated during the operative procedure
AND
:Patient has at least one of the following
a. Purulent drainage from a drain that is placed into the organ/space (e.g., closed suction drainage system, open drain, T-tube drain, CT guided drainage.)
organ/space b. Organisms isolated from an aseptically-obtained culture of fluid or tissue in the
c. An abscess or other evidence of infection involving the organ/space that is detected on gross anatomical or histopathologic exam, or imaging test

AND
Meets at least one criterion for a specific organ/space infection site. These criteria are in the Surveillance Definitions for Specific Types of Infections

5.0 ***American Society of Anesthesiology (ASA) Score***

1. Normally healthy patient
2. Patient with mild systemic disease
3. Patient with severe systemic disease that is not incapacitated
4. Patient with an incapacitating systemic disease that is a constant threat to life
5. Moribund patient not expected to survive for 24 hours with or without operation

6.0 Wound Classes:

- An assessment of the degree of contamination of a surgical wound at the time of the operation.

Wound Class: I – CLEAN

- An uninfected operative wound in which no inflammation is encountered and the respiratory, alimentary, genital, or uninfected urinary tracts are not entered.
- Clean wounds are primarily closed and, if necessary, drained with closed drainage.
- Operative incisional wounds that follow non-penetrating (blunt) trauma.

Wound Class: II – CLEAN-CONTAMINATED

- Operative wounds in which the respiratory, alimentary, genital, or urinary tracts are entered under controlled conditions and without unusual contamination.
- Operations involving the biliary tract, appendix, vagina, and oropharynx are included
- Provided no evidence of infection or major break in technique is encountered

Wound Class: III - CONTAMINATED

- Open, fresh, accidental wounds.
- Operations with major breaks in sterile technique (e.g., open cardiac massage) or gross spillage from the gastrointestinal tract, and incisions in which acute, non-purulent inflammation is encountered.

Wound Class: IV – DIRTY OR INFECTED

- Old traumatic wounds with retained devitalized tissue and those that involve existing clinical infection or perforated viscera.
- This definition suggests that the organisms causing postoperative infection were present in the operative field before the operation

7.0 PROCEDURE DURATION

- Record the minutes between skin incision and skin closure
- Do NOT record anesthesia time
- If more than one procedure is performed through the same incision, record the combined duration of all procedures
- If the patient goes to the OR more than once during the same admission and another procedure is performed through the same incision within 24 hours of the original incision, report the combined duration of operation for both procedures.

8.0 Surgical Site Infection Bundle:

- Appropriate use of prophylactic antibiotics
- Appropriate hair removal
- Controlled postoperative serum glucose *(diabetic and cardiac patients only)*
- Immediate postoperative normothermia (for all patients)

9.0 POLICY STATEMENT(S):

9.1 Surveillance for surgical site Class 1 (clean) and Class 2 (clean-contaminated) infections will be conducted to determine trends, evaluate the efficacy of preventive programs and help identify potential problems.

9.2 All health care workers providing surgical patient care will be educated in the epidemiology of and infection prevention and control procedures for preventing surgical site infections.

9.3 Surgeon-specific SSI rates will be reported.

10.0 EQUIPMENTS /MATERIALS /FORMS:

10.1 follow the attachment forms.

11.0 ROLES AND RESPONSIBILITIES:

11.1 N/A

12.0 PROCEDURE:

12.1 Pre-operative patient preparation (CATS)

12.1.1 Treat all identified infections prior to surgery.

12.1.2 Encourage same-day surgery admission.

12.1.3 Adequately control serum blood glucose levels in all diabetic patients and particularly avoid hyperglycemia postoperatively.

12.1.4 Encourage tobacco cessation. At minimum, instruct patient to abstain from tobacco use for at least 30 days before elective operation.

12.1.5 Ensure the practice of pre- operative bathing/showering with an antimicrobial product (Chlorhexidine preferred) the evening before and the morning of surgery.

12.1.6 Avoid hair removal at the operative site unless absolutely necessary; clip rather than shave.

12.1.7 In the operating room (OR), the area around and including the operative site should be scrubbed for two minutes with an antimicrobial preoperative skin preparation applied from the center to the periphery. This area should be large enough to include the entire incision and an adjacent area large enough for the surgeon to work during the operation without contacting unprepared skin.

12.1.8 For those operations requiring an incision and the use of the OR, the patient should be covered with sterile drapes in such a manner that no part of the

patient is uncovered except the operative field and those parts necessary for anesthesia to be administered and maintained.

12.1.9 Encourage the establishment of postoperative normothermia for colorectal surgery patients.

12.2 Surgical team preparation

12.2.1 Hand/Forearm antiseptics

12.2.1.1 Keep nails short and do not wear artificial nails.

12.2.1.2 Do not wear hand or arm jewelry.

12.2.1.3 Clean underneath each fingernail prior to performing the first surgical scrub of the day.

12.2.1.4 All members of the surgical scrub team who will have contact with the sterile surgical field, sterile instruments or incisional wound will perform a 2 to 5 minute surgicalscrub with an antimicrobial agent at the beginning of the surgical day. The scrub will include the hands and forearms up to the elbows.

12.2.1.5 Between consecutive operations, decontamination of hands may be performed with the use of a hand sanitizer or a scrub of two minutes with an antimicrobial soap.

12.2.1.6 Keep hands elevated and away from the body so that water runs from the tips of the fingers toward the elbows. Dry hands sterile towels and don sterile gowns and gloves.

12.2.2 Surgical attire and drapes

12.2.2.1 During surgery, all who enter the OR will wear a surgical mask that covers the nose and mouth, a cap or hood to fully cover hair on the head and face.

12.2.2.2 OR gowns should be made of reusable or disposable fabrics that have been shown to be effective barriers to organisms, even when wet.

12.2.2.3 The surgical team should wear sterile gloves. If a glove is punctured during the operations, it should be changed as promptly as safety permits.

12.2.2.4 Do not wear shoe covers for the prevention of SSI.

12.2.2.5 Change scrub suits that are visibly soiled, contaminated, and/or penetrated by blood or other potentially infectious materials.

12.3 Preparation and maintenance of OR environment.

12.3.1 Maintain positive pressure ventilation in the OR with respect to the corridors and adjacent.

12.3.2 Maintain a minimum of 15 air exchanges per hour, of which at least 23 should be fresh air. All inlets should be located as high above the floor as possible and remote from exhaust outlets of all types. All air, recirculated or fresh, should be filtered (at least 90% efficiency) before it enters the OR.

12.3.3 All OR doors should be kept closed except as needed for passage of equipment, personnel, and the patient. The number of personnel allowed to enter the OR, especially after an operation has started, should be kept to a minimum.

12.3.4 Routine microbiologic sampling of the air or environment surfaces should not be done.

12.3.5 Use of tacky or antiseptic mats at the entrance to the OR is not recommended for purpose of Infection Prevention & Control.

12.3.6 When visible soiling or contamination with blood or other body fluids of surfaces or equipment occurs during an operation, use a hospital disinfectant to clean the affected areas before the next operation.

12.3.7 Sterilized all surgical instruments according to published guidelines.

12.3.8 Perform flash surgical instruments only for patient care items that will be used immediately (e.g. to reprocess an inadvertently dropped instruments). Do not use flash sterilization for reasons of convenience, as an alternative to purchasing additional instruments sets, or to save time.

12.4 Prophylactic antibiotic use

12.4.1 Administer a prophylactic antibiotic only when indicated, and selection should be consistent with guidelines based on efficacy against the most common pathogens causing SSI for a specific operation and published recommendations.

12.4.2 Administer the initial dose of the prophylactic antibiotic by the intravenous route, timed to ensure that a bactericidal concentration of the drugs is well established in serum and tissues when the incision is made.

12.4.3 Preoperative doses should be given in the operating room (OR), just prior to the procedure (exceptions would be when 2 or more antibiotics or Vancomycin are indicated for prophylaxis).

12.4.4 Intraoperative dosing is not routinely indicated unless it is a prolonged surgical procedure.

12.4.5 Multiple studies have shown that postoperative doses are not routinely indicated for clean or clean- contaminated surgery. Discontinuation of prophylactic antibiotics should occur with 24 hours or three doses which are eight hours apart.

12.5 Protection of patients from other infected patients or personnel

12.5.1 Patient with potentially transmissible infections should be placed on additional precautions.

12.5.2 Personnel with potentially transmissible conditions, for example, Herpes simplex infections of fingers and hands, group A streptococcal disease, or S. aureus skin lesions should be managed according to the Occupational Health and Safety Department policy on infections Disease exposure.

12.5.3 Routine culturing of personnel should not be done.

12.6 Postoperative incision care

12.6.1 Primary closed incisions should be protected with a dressing for 24-48 hours postoperatively.

12.6.2 Cleanse hands before and after dressing changes and any contact with the surgical site.

12.6.3 When an incisional dressing must be changed, use sterile technique.

12.7 Surveillance

12.7.1 Use standardized definitions for identifying SSI among surgical inpatients and outpatients.

12.7.2 Assign surgical wound classification at the completion of an operation. A surgical team member should make the assignment. Record as clean (I), clean- contaminated (II), contaminated (III), or dirty and infected (IV).

12.7.3 Surveillance of post-operative SSI should be done and infection rates reported to the surgeons and other personnel/committees as appropriate.

12.7.4 Increases in wound infection rates should be investigated. If an outbreak is confirmed. Appropriate epidemiologic studies should be initiated.

13.0 RELATED POLICY / CROSS REFERENCES:

The National Healthcare Safety Network (NHSN) Manual (January 2017). Patient Safety Component Protocol. Division of Healthcare Quality Promotion National Center for Infectious Diseases Atlanta, Georgia
https://www.cdc.gov/nhsn/pdfs/pscmanual/pcsmanual_current.pdf
(Last accessed Dec 2016)
Centers for Disease Control and Prevention. Outline For Healthcare-Associated Infections Surveillance (May 2006)

https://www.cdc.gov/nhsn/pdfs/outlineforhaisurveillance.pdf
(Last accessed Dec 2016)
The National Healthcare Safety Network (NHSN) Data Collection Forms

https://www.cdc.gov/nhsn/acute-care-hospital/index.html
(Last accessed Dec 2016)
CDC/NHSN surveillance definition of health care–associated infection and criteria for specific types of infections.

https://www.cdc.gov/nhsn/pdfs/pscmanual/17pscnosinfdef_current.pdf
(Last accessed Dec 2016)
Horan TC, Andrus M, Dudeck MA. CDC/NHSN surveillance definition of health care–associated infection and criteria for specific types of infections in the acute care setting. Am J Infect Control. 2008 Jun;36(5):309-32.

Surveillance. APIC Text of Infection Control and Epidemiology. The Association for Professionals in Infection Control and Epidemiology, Inc. Third Edition

Use of Statistics. APIC Text of Infection Control and Epidemiology. The Association for Professionals in Infection Control and Epidemiology, Inc. Third Edition

14.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR S.C.# 08-RN-8386	07 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	13 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No: 13-R-M-0046094	12 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Mr. Khalid B. AlMutairi QM Director	17 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		24 MAR 2019

15.0 POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version Number	Date
Initial Policy and Procedure	IC 64-1	April 1, 2012
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Deleted	APP-IC-032(3)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-032(4)	April 1, 2019

Afif General Hospital
Infection Prevention & Control Department
Denominator Form for Procedures

وزارة الصحة
Ministry of Health

SECTION I: PATIENT AND HOSPITAL INFORMATION

Patient ID: | | | | | | | | | | |

Date of Birth: | | | | | | | | | |
D D M M Y Y Y Y

Surveillance Plan Date: | | | | |
M M Y Y

Facility ID: | | | | | | | |

Gender:
☐ Male
☐ Female

SECTION II: PROCEDURE INFORMATION

Name of Procedure: _____

Date of Procedure: | | | | | | | | |
D D M M Y Y Y Y

C-Section: ☐ Yes ☐ No

If yes:

Height: _____m

Weight: _____kg

Duration of Labor: _____hr

Blood Loss: _____ml

Orthopedic Surgery: ☐ Yes ☐ No

HPRO:
- ☐ Total Primary
- ☐ Partial Primary
- ☐ Total Revision
- ☐ Partial Revision

KPRO:
- ☐ Primary (Total)
- ☐ Revision (Total or Partial)

Spinal Surgery: ☐ Yes ☐ No

☐ FUSN ☐ RFUSN

Spinal Level: (check one)
- ☐ Atlas-axis
- ☐ Atlas-axis/Cervical
- ☐ Cervical
- ☐ Cervical/Dorsal/Dorsolumbar
- ☐ Dorsal/Dorsolumbar
- ☐ Lumbar/Lumbosacral
- ☐ Not Specified

Diabetes Mellitus: ☐ Yes ☐ No

Approach/ Technique: (check one)
- ☐ Anterior
- ☐ Posterior
- ☐ Anterior and Posterior
- ☐ Lateral Transverse
- ☐ Not Specified

COMMENTS:

Afif General Hospital
Infection Prevention & Control Department
Surgical Site Infection (SSI) Bundle Form

وزارة الصحة
Ministry of Health

SECTION I: PATIENT AND HOSPITAL INFORMATION

Patient ID: | | | | | | | | | | |

Date of Birth: | | | | | | | | | | (D D M M Y Y Y Y)

Gender: ☐ Male ☐ Female

Surveillance Plan Date: | | | | | (M M Y Y)

Ward/Unit:

Location: ☐ Outpatient ☐ Inpatient ☐ Both

Facility ID: | | | | | | | |

Name of Procedure:

SECTION II: BUNDLE VARIABLES

Appropriate Use of Antibiotics:

1. Antibiotic(s) was (were) given within one (1) hour before surgical incision ☐ Yes ☐ No ☐ Not documented ☐ N/A

2. Prophylactic antibiotic(s) is (are) consistent with the recently updated GCC guidelines for surgical prophylaxis ☐ Yes ☐ No ☐ Not documented ☐ N/A

3. Discontinuation of prophylactic antibiotic(s) within 24 hours after surgery** ☐ Yes ☐ No ☐ Not documented ☐ N/A

Antibiotic (1) Name:

Dose: | | | | | Mg/day

Route: ☐ Parenteral (IV or IM) ☐ Oral ☐ Others, specify:

Antibiotic (2) Name:

Dose: | | | | | Mg/day

Route: ☐ Parenteral (IV or IM) ☐ Oral ☐ Others, specify:

Appropriate Hair Removal:

4. Was hair at the incisional site clipped? ☐ Yes ☐ No ☐ Not documented ☐ N/A

Maintenance of Postoperative Glucose Control: (for diabetics and cardiac patients only)

5. Serum glucose levels below 11.11 mmol/L (200 mg/dL), collected at least once on each of the first two (2) post-operative days

Serum glucose day (1) | | | . | | | mmol/L ☐ Yes ☐ No ☐ Not documented ☐ N/A

Serum glucose day (2) | | | . | | | mmol/L ☐ Yes ☐ No ☐ Not documented ☐ N/A

Maintenance of Postoperative Normothermia: (for all patients)

6. Postoperative core temperature is normal (36.1-37.1°C) ☐ Yes ☐ No ☐ Not documented ☐ N/A

Core temperature | | | | | °C

Overall Compliance: (compliant for all 6 components) ☐ Yes ☐ No

*Due to the longer infusion time required for vancomycin it is acceptable to start this antibiotic within 2 hours prior to incision.
**During cardiovascular surgery, prophylactic antibiotic(s) should be discontinued within 48 hours after surgery.

COMMENTS:

Date Data Collected	D	D	M	M	Y	Y
Collector ID						
Date Data Entered	D	D	M	M	Y	Y
Data Entry ID						

Afif General Hospital
Infection Prevention & Control Department
Surgical Site Infection (SSI) Surveillance Form

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SECTION I: PATIENT AND HOSPITAL INFORMATION

Patient ID: | | | | | | | | | | |

Date of Birth: | | | | | | | | | | | (D D M M Y Y Y Y)

Surveillance Plan Date: | | | | | (M M Y Y)

Gender: ☐ Male ☐ Female

Facility ID: | | | | | | | |

Ward/ Unit: _____

Location: ☐ Outpatient ☐ Inpatient ☐ Both

SECTION II: OPERATIVE PROCEDURE INFORMATION

NHSN Procedure Name & Code:

Emergency:
☐ Yes
☐ No

Multiple Procedures:
☐ Yes, specify:
☐ No
☐ N/A

Pre-Procedure Diagnosis:

Donor Site:
☐ Yes, from where:
☐ No
☐ N/A

Laparoscope/Endoscope Used:
☐ Yes
☐ No

Implant:
☐ Yes
☐ No

Trauma:
☐ Yes
☐ No

Wound Class:
☐ I-Clean
☐ II- Clean-Contaminated
☐ III- Contaminated
☐ IV- Dirty or Infected

General Anesthesia:
☐ Yes
☐ No

ASA Score: | |

Actual Procedure Duration (min): | | | |

Proc. Duration Cut-off Point (min): | | | |

Admission Date: | | | | | | |

Discharge Date: | | | | | | |

Date of Procedure: | | | | | | | (D D M M Y Y)

Operative Surgeon ID: _____

SECTION III: PATIENT RISK INDEX CATEGORY

ASA Score		Put 1 if ASA score was 3, 4, 5; otherwise 0
Wound Class		Put 1 if the wound class was III or IV, otherwise 0
Procedure Duration		Put 1 if the procedure duration exceeds the operation-specific cut-point, otherwise 0
Total		Risk index category of 0, 1, 2, or 3

SECTION IV: SSI EVENT INFORMATION

SSI Diagnosed:
☐ Yes, complete below
☐ No

SSI Category: (See the back)
☐ Superficial Incisional Primary (SIP)
☐ Superficial Incisional Secondary (SIS)
☐ Deep Incisional Primary (DIP)
☐ Deep Incisional Secondary (DIS)
☐ Organ/Space, specify:

SSI Detected:
☐ Before Discharge
☐ After Discharge
☐ On Readmission

SSI Date: | | | | | | | (D D M M Y Y)

Post-Procedure BSI:
☐ Yes
☐ No

Post-Procedure Pneumonia (PPP):
☐ Yes
☐ No

Hospitalization Death:
☐ Yes, complete below
☐ No

Death Date: | | | | | | | (D D M M Y Y)

SSI Contributed to Death:
☐ Yes
☐ No

SECTION V: LABORATORY RECORD

Time of Specimen Collection:
_____:_____ AM / PM

Organism Identified:
☐ Yes, complete the back
☐ No

COMMENTS:

Date Data Collected	D	D	M	M	Y	Y
Collector ID						
Date Data Entered	D	D	M	M	Y	Y
Data Entry ID						

SECTION V: LABORATORY RECORD

Name of Gram-Positive or Negative Organism(s)	Date of Record DD-MM-YY	Antimicrobial Sensitivity																										
		AMIK	AMP	AZTREON	CEFAZ	CEFEP	CEFTAZ	CEFTOX	CEFTRI	CEFUR	CIP	CLINDA	ERYTH	GEN/TOB	IMI	LEVO	LNZ	MERO	MET	MUP	NIT	OXA	PEN	PIP	RIF	SXT/TMZ	TAZ	VANC	OTHERS

Name of Other Organisms (e.g., Candida spp.)	**Date of Record** DD-MM-YY	**Antimicrobial Sensitivity (type antimicrobial names)**					
		1-……	2-……	3-……	4-……	5……	6-……

Result Codes: **S** = Susceptible **I** = Intermediate **R** = Resistant **N** = Not tested

Drug Codes:

AMIK = amikacin
AMP = ampicillin
AZTREON = aztreonam
CEFAZ = cefazolin
CFEP = cefepime
CEFTAZ = ceftazidime
CEFTOX= cefotaxime
CEFTRI = ceftriaxone
CEFUR = cefuroxime
CIP = ciprofloxacin
CLINDA = clindamycin
ERYTH = erythromycin
GEN/TOB = gentamicin/tobramycin
IMI = imipenem
LEVO = levofloxacin
LNZ = linezolid
MERO = meropenem
MET = metronidazole
MUP = mupriocin
NIT = nitrofurantoin
OXA = oxacillin
PEN = penicillin
PIP = piperacillin
RIF = rifampicin
SXT/TMZ =sulfamethoxazole/trimethoprim
TAZ = piperacillin-tazobactam (tazocin)
VANC = vancomycin

Superficial Incisional SSI

Infection occurs within 30 days after the operation, and infection involves only the skin or subcutaneous tissue and at least one of the following:

- ☐ Purulent drainage (culture documentation not required)
- ☐ Organisms isolated from fluid/tissue culture of superficial incision
- ☐ At least one of the following signs and symptoms of infection: pain or tenderness, localized swelling, redness, heat, superficial incision is deliberately opened by surgeon and is culture-positive or not cultured. A culture-negative finding does not meet this criterion
- ☐ Surgeon or attending physician declares the wound to be infected

Deep Incisional SSI

Infection occurs within 30 days of operation or within one year if an implant is present, and infection involves deep soft tissue (e.g., fascia and muscle layers) of the incision and at least one of the following:

- ☐ Purulent drainage from the deep incision but without organ/space involvement
- ☐ A deep incision spontaneously dehisces or is deliberately opened by a surgeon and is culture-positive or not cultured when the patient has at least one of the following signs and symptoms: fever (>38°C) or localized pain or tenderness. A culture-negative finding does not meet this criterion
- ☐ Deep abscess is identified by direct examination, during reoperation, or by histopathologic or radiological examination
- ☐ Surgeon or attending physician declares that a deep incisional infection is present

Organ/Space SSI

Infection occurs within 30 days after operation or within one year if an implant is present and infection involves any part of the body, excluding the skin incision, fascia, or muscle layers, that is opened or manipulated during the operative procedure and at least one of the following:

- ☐ Purulent drainage from a drain placed by a stab wound into the organ/space
- ☐ Organisms isolated from an aseptically obtained culture of fluid or tissue in the organ/space
- ☐ Abscess or other evidence of infection involving the organ/space by direct examination, during reoperation, or by histopathological or radiological examination
- ☐ Diagnosis of organ/space SSI by surgeon or attending physician

There are two specific types of superficial and deep surgical incisional SSIs:

1. **Primary**: a superficial or deep incisional SSI that is identified in a primary incision in a patient who has had anoperation with one or more incisions (e.g., C-section incision or chest incision for CBGB).
2. **Secondary**: a superficial or deep incisional SSI that is identified in the secondary incision in a patient who has had an operation with more than one incision (e.g., donor site [leg] incision for CBGB).

DEPARTMENTAL POLICY AND PROCEDURE (DPP)			
DEPARTMENT: INFECTION CONTROL			
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
INFECTION PREVENTION & CONTROL GUIDELINES FOR PATIENTS WITH MIDDLE EAST RESPIRATORY SYNDROME CORONA VIRUS (MERS CoV)			**APP-IC-033(3)**
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 31, 2022	APP-IC (2)	23
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		To all Healthcare Workers	

1.0 INTRODUCTION

The MERS-CoV Advisory Council has developed the following guidelines to meet the urgent need for up-to-date information and evidence-based recommendations for the safe care of patients with suspected, probable, or confirmed Middle East Respiratory Syndrome Coronavirus (MERS-CoV) infection. The main bulk of these guidelines have been adapted from previous guidelines produced by the World Health Organization (WHO)[1] and the Centers for Disease Control and Prevention (CDC)[2]. Council members have revised these two documents and made important modifications based on the current epidemiological evidence and the members' clinical experience in Infectious Diseases, Infection Control, Emergency Medicine, Intensive Care, and management of patients with MERS-CoV. The council has revised the case definition based on the latest epidemiological and clinical features observed in patients reported in Kingdom. It has been adapted by our department to be implemented in our hospital.

2.0 PURPOSE

2.1 To provide guidelines regarding the management of patients with suspected,

probable and confirmed case of MERS CoV infection.

2.2 To provide knowledge for all healthcare workers about the prevention and control of spread of infection within the hospital.

3.0 DEFINITION

3.1 ***Protected exposure*** – contact within 1.5 meters with a patient with confirmed or probable MERS – CoV infection while wearing all personal protective equipment (surgical mask, gloves and gowns and when indicated goggles or N95 mask).

3.2 ***Unprotected exposure*** – contact within 1.5 meters with a patient with confirmed or probable MERS CoV infection without wearing all personal protective equipment.

3.3 ***Close contact*** – is defined as, a) any person who provided care for the patient, including a healthcare worker or family member, or had similarly close physical contact; or b) any person who stayed at the same place (e.g. lived with, visited) as the patient while the patient was ill.

4.0 CLINICAL FEATURES

4.1 SUSPECTED CASE*

Clinical presentation	Epidemiologic Link
I. Severe pneumonia (severity score ≥3 points) (Appendix A) or ARDS (based on clinical or radiological evidence)	Not required
II. Unexplained deterioration** of a chronic condition of patients with congestive heart failure or chronic kidney disease on hemodialysis	Not required
III. Acute febrile illness (T ≥380 C) with/without respiratory symptoms OR IV. Gastrointestinal symptoms (diarrhea or vomiting), AND leukopenia (WBC≤3.5x109 /L) or thrombocytopenia (platelets < 150x109/L)	Within 14 days before symptom onset: 1. Exposure*** to a confirmed case of MERS-CoV infection OR 2. Visit to a healthcare facility where MERS-CoV patients(s) has recently (within 2 weeks) been identified/treated OR

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	3. Contact with dromedary camels**** or consumption of camel products (e.g. raw meat, unpasteurized milk, urine)

4.2 Probable case

A probable case is a patient in category I or II above with absent or inconclusive laboratory results for MERS-CoV and other possible pathogens who is a close contact of a laboratory-confirmed MERS-CoV case or who works in a hospital where MERS-CoV cases are cared for.

4.3 Confirmed case

A confirmed case is a suspect case with laboratory confirmation of MERS-CoV infection.

5.0 MANAGEMENT

5.1 General infection prevention and control precautions

Standard Precautions

Standard Precautions, a cornerstone for providing safe health care and reducing the risk of further infection, should always be applied in all health-care settings for all patients. It includes the following:

5.1.1 Hand hygiene

5.1.1.1 HCWs should apply "My 5 moments for hand hygiene": before touching a patient, before any clean or aseptic procedure, after body fluid exposure, after touching a patient, and after touching a patient's surroundings, including contaminated items or surfaces.

5.1.1.2 Hand hygiene includes either washing hands with antiseptic soap and water or the use of an alcohol-based waterless hand sanitizer (waterless hand rub).

5.1.1.3 Wash hands with antiseptic soap and water when they are visibly soiled.

5.1.1.4 The use of gloves does not eliminate the need for hand hygiene. Hand hygiene is necessary after taking off gloves and other personal protective equipment (PPE).

5.1.2 Use of personal protective equipment (PPE) to avoid direct contact with patients' blood, body fluids, secretions (including respiratory secretions) and non-intact skin.

5.1.2.1 The use of PPE should be guided by a risk assessment concerning anticipated contact with blood, body fluids, secretions and non-intact skin for routine patient care.

5.1.2.2 When procedures include a risk of splash to the face and/or body, PPE should include the use of facial protection by means of either a medical mask and eye-visor or goggles, or a face shield; and a gown and clean gloves.

5.1.3 Respiratory Hygiene and Cough Etiquette

To prevent the transmission of all respiratory infections in healthcare setting including MERS-CoV and influenza, the following infection control measures should be implemented at the first point of contact with a potentially infected person. They should be incorporated into infection control practices as one component of precautions.

5.1.3.1 Visual Alerts

Post visual alerts (in appropriate languages) at the entrance to outpatient facilities (e.g., emergency rooms and clinics) instructing patients and persons who accompany them (e.g., family, friends) to inform healthcare personnel of symptoms of acute respiratory illness (including fever with cough, sore throat, rhinorrhea, sneezing, shortness of breath, and/or wheezing) when they first register for care and to practice the following Respiratory Hygiene/Cough Etiquette.

a. Cover your mouth and nose with a tissue when coughing or sneezing;
b. Dispose of the tissue in the nearest waste receptacle right after use;
c. Perform hand hygiene (e.g., hand washing with non-

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antimicrobial soap and water, alcohol- based hand sanitizer, or antiseptic handwash) after having contact with respiratory secretions and contaminated objects/materials.

5.1.3.2 Masking and Separation of persons with respiratory symptoms

a. Offer regular (medical) masks to persons who are coughing. Regular (medical) mask may be used to contain respiratory secretions (N-95 masks are not necessary for this purpose).

b. When space and chair availability permit, encourage coughing persons to sit at least 1 meter away from others in common waiting areas.

c. Healthcare facilities should ensure the availability of materials for adhering to Respiratory Hygiene/Cough Etiquette in waiting areas for patients and visitors.

d. Provide tissues and no-touch receptacles for used tissue disposal.

e. Provide conveniently located dispensers of alcohol-based hand sanitizer;

f. Where sinks are available, ensure that supplies for hand washing (i.e., antiseptic soap and disposable towels) are consistently available.

g. Prevention of overcrowding in waiting and clinical areas is essential to prevent cross infection.

h. Environmental ventilation in all areas within a health-care facility.

i. Environmental cleaning.

j. Prevention of needle-stick or sharps injury.

k. Safe waste management

l. Follow standard procedures, per hospital policy and manufacturers' instructions, for and/or disinfection of:

i. Environmental surfaces and equipment
ii. Textiles and laundry

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iii. Food utensils and dishware

m. Follow standard procedures for cleaning and/or disinfection of environmental surfaces and patient-care equipment, linen, stretcher (trolley), and bed. For equipment that requires sterilization, follow routine sterilization procedures.

n. Ensure that cleaning and disinfection procedures are followed consistently and correctly. Cleaning environmental surfaces with water and detergent and applying commonly used disinfectants (such as hypochlorite diluted 10 times) is an effective and sufficient procedure. Manage laundry, food service utensils and medical waste in accordance with routine procedures.

o. Policies and procedures for all facets of occupational health, with emphasis on surveillance of ARIs among HCWs and the importance of seeking medical care

p. Monitoring of compliance, along with mechanisms for improvement as needed.

5.2 Triage for rapid identification of patients with acute respiratory illness (ARI)

5.2.1 Clinical triage should be used for early identification of all patients with ARI in the Emergency Rooms and the Clinics.

5.2 2 Rapid identification of patients with ARI and patients suspected of MERS-CoV infection is key to prevent healthcare associated transmission of MERS-CoV or other respiratory viruses. Appropriate infection control precautions and respiratory etiquette (described above) for source control should be promptly applied.

5.2.3 Identified ARI patients should be asked to wear a medical mask. They should be evaluated immediately in an area separate from other patients. Infection control and prevention precautions should be promptly implemented.

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5.2.4 If ARI patients cannot be evaluated immediately, they should wait in a waiting area dedicated for the ARI patients with spatial separation of at least 1 m between each ARI patient and others.

5.2.5 Clinical and epidemiological aspects of the cases should be evaluated as soon as possible and the investigation should be complemented by laboratory evaluation.

5.3 Infection prevention and control precautions when caring for patients with suspected, probable, or confirmed MERS-CoV infection

5.3.1 For patients with suspected, probable, or confirmed MERS-CoV infection who are not critically ill, standard, contact, and droplet precautions are recommended for management.

5.3.2 For patients who are critically ill (e.g. pneumonia with respiratory distress or hypoxemia), standard, contact, and airborne precautions are recommended due to the high likelihood of requiring aerosol-generating procedures.

5.3.3 Standard, contact, and airborne precautions should be used for all (critically or non-critically ill) patients when anticipating or performing aerosol-generating procedures which may be associated with an increased risk of infection transmission (including both elective procedures such as bronchoscopy, sputum induction, elective intubation and extubation, and emergency procedures such as cardiopulmonary resuscitation, initiation of Bilevel Positive Airway Pressure-BIPAP, emergency intubation, open suctioning of airways, manual ventilation via umbo bagging through a mask before intubation).

Selected Components of Recommended Precautions

A. Placement:

a. Place patients with suspected, probable, or confirmed MERS-CoV infection who are not critically ill in single patient rooms in an area that is clearly segregated from other patient-care areas. (Aerosol **generating procedures should be performed in a negative pressure room).**

b. Place patients with suspected, probable, or confirmed MERS-CoV infection

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who are critically ill (e.g. pneumonia with respiratory distress or hypoxemia) in Airborne Infection Isolation rooms (Negative Pressure Rooms) due to the high likelihood of requiring aerosol-generating procedures

c. When negative pressure rooms are not available, place the patients in adequately ventilated single rooms. When available, a portable HEPA filter, turned on to maximum power, should be placed at the head side of the patient's bed.

d. When single rooms are not available, place patients with the same diagnosis (cohorting). If this is not possible, place patient beds at least 1 m apart.

e. Avoid the movement and transport of patients out of the isolation room or area unless medically necessary. The use of designated portable X-ray, ultrasound, echocardiogram, and other important diagnostic machines is recommended when possible.

If transport is required:

a. Patients should wear a medical mask to contain secretions

b. Use routes of transport that minimize exposures of staff, other patients, and

c. Notify the receiving area of the patient's diagnosis and necessary precautions as soon as possible before the patient's arrival.

d. Ensure that healthcare workers (HCWs) who are transporting patients wear appropriate PPE and perform hand hygiene afterwards

B. Personal Protective Equipment (PPE) for Healthcare Workers (HCWs)

A. The following PPE should be worn by HCWs upon entry into patient rooms or care areas:

a. Gowns (clean, non-sterile, long-sleeved disposable gown)

b. Gloves

c. Eye protection (goggles or face shield)

d. A medical mask.

e. For patients under airborne precautions, all persons entering the patient's room should wear a fit-tested, seal checked N-95 mask instead of a medical mask. For those who failed the fit testing of N95 masks (e.g those with beards), an alternative respirator, such as a powered air-purifying

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respirator should be used.

B. Upon exit from the patient room or care area, PPE should be removed and discarded.

a. Except for N95 masks, remove PPE at doorway or in anteroom. Remove N95 mask after leaving patient room and closing door.

b. Remove PPE in the following sequence: 1. Gloves 2. Goggles or face shield, 3. Gown, and 4. Mask.

c. You should note and observe the following :

Gloves

a. Outside of gloves is contaminated

b. Grasp outside of glove with opposite gloved hand; peel off

c. Hold removed glove in gloved hand

d. Slide fingers of ungloved hand under remaining glove at wrist

e. Peel glove off over first glove

f. Discard gloves in waste container

Goggles or face shield

a. Outside of goggles or face shield is contaminated

b. To remove, handle by head band or ear pieces

c. Place in designated receptacle for reprocessing or in waste container

Gown

a. Gown front and sleeves are contaminated

b. Unfasten ties

c. Pull away from neck and shoulders, touching inside of gown only

d. Turn gown inside out

e. Fold or roll into a bundle and discard

Medical or N95 masks

a. Front of mask/respirator is contaminated -DO NOT TOUCH

b. Grasp bottom, then top ties or elastics and remove

c. **Discard in waste container**

C. Never wear a medical mask under the N95 mask as this prevents proper fitting and sealing of the N95 mask thus decreasing its efficacy.

D. For female staff who wear veils, the medical or N95 mask should always be

placed directly on the face behind the veil and not over the veil. In this instance, a face-shield should also be used along with the mask to protect the veil from droplet sprays

E. Perform hand hygiene before and after contact with the patient or his/her surroundings and immediately after removal of PPE.

F. If possible, use either disposable equipment or dedicated equipment (e.g. stethoscopes, blood pressure cuffs and thermometers).

G. If equipment needs to be shared among patients, clean and disinfect it after each patient uses.

H. HCWs should refrain from touching their eyes, nose or mouth with potentially contaminated gloved or ungloved hands.

C. Environmental Infection Control

Follow standard procedures, per hospital policy and manufacturers' instructions, for cleaning and/or disinfection of:

a. Environmental surfaces and equipment

b. Textiles and laundry

c. Food utensils and dishware

Clean and disinfect patient-contact surfaces (e.g. bed and machines) after use

D. Limit the number of HCWs, family members and visitors in contact with a patient with probable or confirmed MERS-CoV infection.

E. To the extent possible, assign probable or confirmed cases to be cared for exclusively by a group of skilled HCWs and housekeepers both for continuity of care and to reduce opportunities for inadvertent infection control breaches that could result in unprotected exposure.

F. Family members and visitors in contact with a patient should be limited to those essential for patient support and should be trained on the risk of transmission and on the use of the same infection control precautions as HCWs who are providing routine care. Further training may be needed in settings where hospitalized patients are often cared for by family members (sitters).

5.4 Infection prevention and control precautions for aerosol- generating procedures

5.4.1 An aerosol-generating procedure is defined as any medical procedure that can induce the production of aerosols of various sizes, including small (< 5

micron) particles.

5.4.2 Aerosol-generating procedures that may be associated with an increased risk of infection transmission includes both elective procedures such as bronchoscopy, sputum induction, elective intubation and extubation, as well as emergency procedures such as cardiopulmonary resuscitation, initiation of Bilevel Positive Airway Pressure-BIPAP, emergency intubation, open suctioning of airways, manual ventilation via umbo bagging through a mask before intubation

5.4.3 Additional precautions should be observed when performing aerosol-generating procedures, which may be associated with an increased risk of infection transmission.

5.4.4 Additional precautions when performing aerosol-generating procedures:

5.4.4.1 Wear N95 masks –Every healthcare worker should wear a fit tested N95 mask (or an alternative respirator if fit testing failed). Additionally, when putting on N95 mask, always check the seal.

5.4.4.2 Wear eye protection (i.e. goggles or a face shield).

5.4.4.3 Wear a clean, non-sterile, long-sleeved gown and gloves (some of these procedures require sterile gloves).

5.4.4.4 Wear an impermeable apron for some procedures with expected high fluid volumes that might penetrate the gown;

5.4.4.5 Perform procedures in a negative pressure room.

5.4.4.6 Limit the number of persons present in the room to the absolute minimum required for the patient's care and support;

5.4.4.7 Perform hand hygiene before and after contact with the patient and his or her surroundings and after PPE removal

5.5 Admission criteria

5.5.1 Not all suspected MERS-CoV patients should be admitted to health-care facilities (Please refer to Attachment 1 - Algorithm for managing patients with suspected MERS- CoV).

5.5.2 Patients suspected to have MERS-CoV infection who have shortness of breath, hypoxemia, and/or clinical or radiological evidence of pneumonia

should be hospitalized.

5.5.3 Patients with suspected MERS-CoV who have no shortness of breath, hypoxemia, or evidence of pneumonia may be cared for and isolated in their home when suitable.

5.6 Home isolation

5.6.1 Isolation is defined as the separation or restriction of activities of an ill person with a contagious disease from those who are well.

5.6.2 Before the ill person is isolated at home a healthcare professional should:

5.6.2.1 Assess whether the home is suitable and appropriate for isolating the ill person.You can conduct this assessment by phone or direct observation.

a. The home should have a functioning bathroom. If there are multiple bathrooms, one should be designated solely for the ill person.

b. The ill person should have his or her own bed and preferably a private room for sleeping.

c. Basic amenities, such as heat, electricity, potable and hot water, sewer, and telephone access, should be available.

d. There should be a primary caregiver who can follow the healthcare provider's instructions for medications and care. The caregiver should help the ill person with basic needs in the home and help with obtaining groceries, prescriptions, and other personal needs.

- If the home is suitable and appropriate for home care and isolation you should give the patient, the caregiver, and household members the following instructions:

5.6.3.1 For the patient

a. **Separate yourself from other people in your home**.

As much as possible, you should stay in a different room from other people in your home. Also, you should use a separate bathroom, if available

b. **Call ahead before visiting your doctor**

Before your medical appointment, call the healthcare provider and tell him or her that you may have MERS-CoV infection. This will help the healthcare provider's office take steps to keep other people from getting infected.

c. **Wear a medical mask**

You should wear a medical mask when you are in the same room with other people and when you visits a healthcare provider. If you cannot wear a medical mask, the people who live with you should wear one while they are in the same room with you.

d. **Cover your coughs and sneezes**

Cover your mouth and nose with a tissue when you cough or sneeze, or you can cough or sneeze into your sleeve. Throw used tissues in a lined trash can, and immediately wash your hands with soap and water or disinfect it with waterless alcohol-based hand sanitizer.

e. **Wash your hands**

Wash your hands often and thoroughly with antiseptic soap and water. You can use an alcohol-based hand sanitizer if antiseptic soap and water are not available and if your hands are not visibly dirty. Avoid touching your eyes, nose, and mouth with unwashed hands.

f. **Avoid sharing household items**

You should not share dishes, drinking glasses, cups, eating utensils, towels, bedding, or other items with other people in your home. After using these items, you should wash them thoroughly with soap and warm water.

5.6.3.2 For caregivers and household members

If you live with or care for someone at home who is ill and being evaluated for MERS-CoV infection, you should:

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a. Make sure that you understand and can help the ill person follow the healthcare provider's instructions for medication and care. You should help the ill person with basic needs in the home and provide support for getting groceries, prescriptions, and other personal needs.

b. Have only people in the home who are essential for providing care for the ill person.

   i. Other household members should stay in another home or place of residence. If this is not possible, they should stay in another room, or be separated from the ill person as much as possible. Use a separate bathroom, if available.

   ii. Restrict visitors who do not have an essential need to be in the home

   iii. Keep elderly people and those who have compromised immune systems or specific health conditions away from the ill person. This includes people with chronic heart, lung or kidney diseases, and diabetes

c. Make sure that shared spaces in the home have good air flow, such as by air-conditioner or an opened window.

d. Wear a disposable medical mask, gown, and gloves when you touch or have contact with the ill person's blood, body fluids and/or secretions, such as sweat, saliva, sputum, nasal mucous, vomit, urine, or diarrhea.

   i. Throw out disposable medical masks, gowns, and gloves after using them. Do not reuse.

   ii. Wash your hands immediately after removing your medical mask, gown, and gloves.

e. Wash your hands often and thoroughly with soap and water. You can use an alcohol-based hand sanitizer if soap and water are not available and if your hands are not visibly dirty. Avoid touching your eyes, nose, and

mouth with unwashed hands.

f. Avoid sharing household items. You should not share dishes, drinking glasses, cups, eating utensils, towels, bedding, or other items with an ill person who is being evaluated for MERS-CoV infection. After the ill person uses these items, you should wash them thoroughly with soap and warm water.

g. Clean all "high-touch" surfaces, such as counters, tabletops, doorknobs, bathroom fixtures, toilets, and bedside tables, every day. Also, clean any surfaces that may have blood, body fluids and/or secretions on them.

   i. Wear disposable gloves and gown while cleaning surfaces.

   ii. Use a diluted bleach solution or a household disinfectant. To make a bleach solution at home, add 1 tablespoon of bleach to 4 cups of water. For a larger supply, add ¼ cup of bleach to 16 cups of water.

h. Wash laundry thoroughly.

   i. Immediately remove and wash clothes or bedding that have blood, body fluids and/or secretions on them.

   ii. Wear disposable gloves while handling soiled items.

   iii. Wash your hands immediately after removing your gloves.

   iv. Wash the items with detergent and warm water at the maximum available cycle length then machine dry them.

i. Place all used gloves, gowns, medical masks, and other contaminated items in a lined container before disposing them with another household waste. Wash your hands immediately after handling these items.

j. Follow the guidance for close contacts below.

5.6.3.3 For close contacts including health care workers

If you have had close contact with someone who is ill and being

evaluated for MERS- CoV infection, you should:

a. Monitor your health for 14 days, starting from the day you were last exposed to the ill person. Watch for these symptoms:
   i. Fever (38° C or above). Take your temp. twice a day
   ii.. Coughing.
   iii. Shortness of breath.
   iv. Other early symptoms to watch for are chills, body aches, sore throat, headache, diarrhea, nausea/vomiting, and runny nose.

b. If you develop symptoms, follow the prevention steps described above, and call your healthcare provider as soon as possible. Before your medical appointment, call the healthcare provider and tell him or her about your possible exposure to MERS-CoV. This will help the healthcare provider's office take steps to keep other people from getting infected. Ask your healthcare provider to call the MOH.

c. If you do not have any of the symptoms,you can continue with your daily activities, such as going to work, school, or other public areas.

5.7 Management of health care workers who had contacts with patients with MERS-CoV infection.

5.7.1 Health care facilities should trace all health care workers who had protected or unprotected contacts with patients with suspected, probable, or confirmed MERS-CoV infection.

5.7.2 Contacts should not be routinely tested for MERS-CoV unless they develop upper or lower respiratory illness.

5.7.3 Contacts should continue to work in the hospital unless they develop upper o lower respiratory illness.

5.7.4 The infection control unit of the facility or equivalent thereof should

proactively call by phone all contacts to assess their health on a daily basis for a total of 14 days. Contacts should also be instructed to report immediately to the Staff Health Clinic or Emergency Room if they develop upper or lower respiratory illness.

5.7.5 The Infection Control unit should be notified of all contacts who develop a respiratory illness.

5.7.6 Symptomatic contacts should be assessed clinically. Nasopharyngeal swabs should be collected and tested for MERS-CoV PCR.

5.7.7 Symptomatic contacts should be managed as suspected cases using the same protocol described in the MERS-CoV management algorithm.

5.8 Management of household contacts of patients with MERS-CoV infection

5.8.1 The Department of Public Health in the local Ministry of Health Directorate Office should trace all household or other contacts of patients with suspected, probable, or confirmed MERS-CoV infection.

5.8.2 Contacts should not be routinely tested for MERS-CoV unless they develop upper or lower respiratory illness.

5.8.3 The Department of Public Health should proactively call by phone all contacts to assess their health on a daily basis for a total of 14 days. Contacts should also be instructed to report immediately to the nearest hospital if they develop upper or lower respiratory illness.

5.8.4 Symptomatic contacts should be assessed clinically. Nasopharyngeal swabs should be collected and tested for MERS-CoV PCR.

5.8.5 Symptomatic contacts should be managed as suspected cases using the same protocol described in the MERS-CoV management algorithm (attachment).

5.9 Duration of isolation precautions for MERS-CoV infection

5.9.1 Since the duration of infectivity for MERS-CoV infection is unknown, nasopharyngeal swab should be repeated every 3 days for in-patients and every week for home-isolated patients with confirmed MERS-CoV infection to test for viral shedding to assist the decision making particularly in regard to when to stop isolation in the hospital or the home setting.

إدارة الجودة

5.9.2 While standard precautions should continue to be applied always, additional isolation precautions should be used during the duration of symptomatic illness and continued until 48 hours after the resolution of symptoms; AND At least one nasopharyngeal sample is negative for MERS-CoV RNA.

5.9.3 If the sample is still positive, and the patient is well enough to go home, he/she can be allowed to go home with instruction to isolate him/herself at home and come wearing a medical mask to the clinic for follow up every week to have nasopharyngeal swab repeated until it is proven to be negative.

5.9.4 Note that additional infection prevention precautions or considerations may be needed if a MERS-CoV patient has other conditions or illnesses that warrant specific measures (e.g., tuberculosis, Clostridium difficile, multi-drug resistant organisms.

5.10 Collection and handling of laboratory specimens

5.10.1 All specimens should be regarded as potentially infectious, and HCWs who collect or transport clinical specimens should adhere rigorously to standard precautions to minimize the possibility of exposure to pathogens.

5.10.2 Ensure that HCWs who collect specimens wear appropriate PPE.

5.10.3 Ensure that personnel who transport specimens are trained in safe handling practices and spill decontamination procedures.

5.10.4 Place specimens for transport in leak-proof specimen bags (secondary container) that have a separate sealable pocket for the specimen (i.e. a plastic biohazard specimen bag), with the patient's label on the specimen container (primary container), and a clearly written request form.

5.10.5 Ensure that health-care facility laboratories adhere to appropriate biosafety practices and transport requirements according to the type of organism being handled.

5.10.6 Deliver all specimens by hand whenever possible. Do not use pneumatic-tube systems to transport specimens.

5.10.7 State the name of the suspected ARI of potential concern clearly on the accompanying request form. Notify the laboratory as soon as possible that the specimen is being transported.

إدارة الجودة

5.11 Managing bodies in the mortuary

5.11.1 Deceased bodies may pose a potential risk of infections when handled by either family members or body washers.

5.11.2 Body washing must be done in the hospital

5.11.3 If family members wish to perform the body washing, they must strictly adhere to standard precautions and use PPE

5.11.4 When washing the body, wear gloves, N95 mask, a face shield (visor) or goggles, impermeable protective gown, and shoe cover. Observe hand hygiene.

6.0 REFERENCE

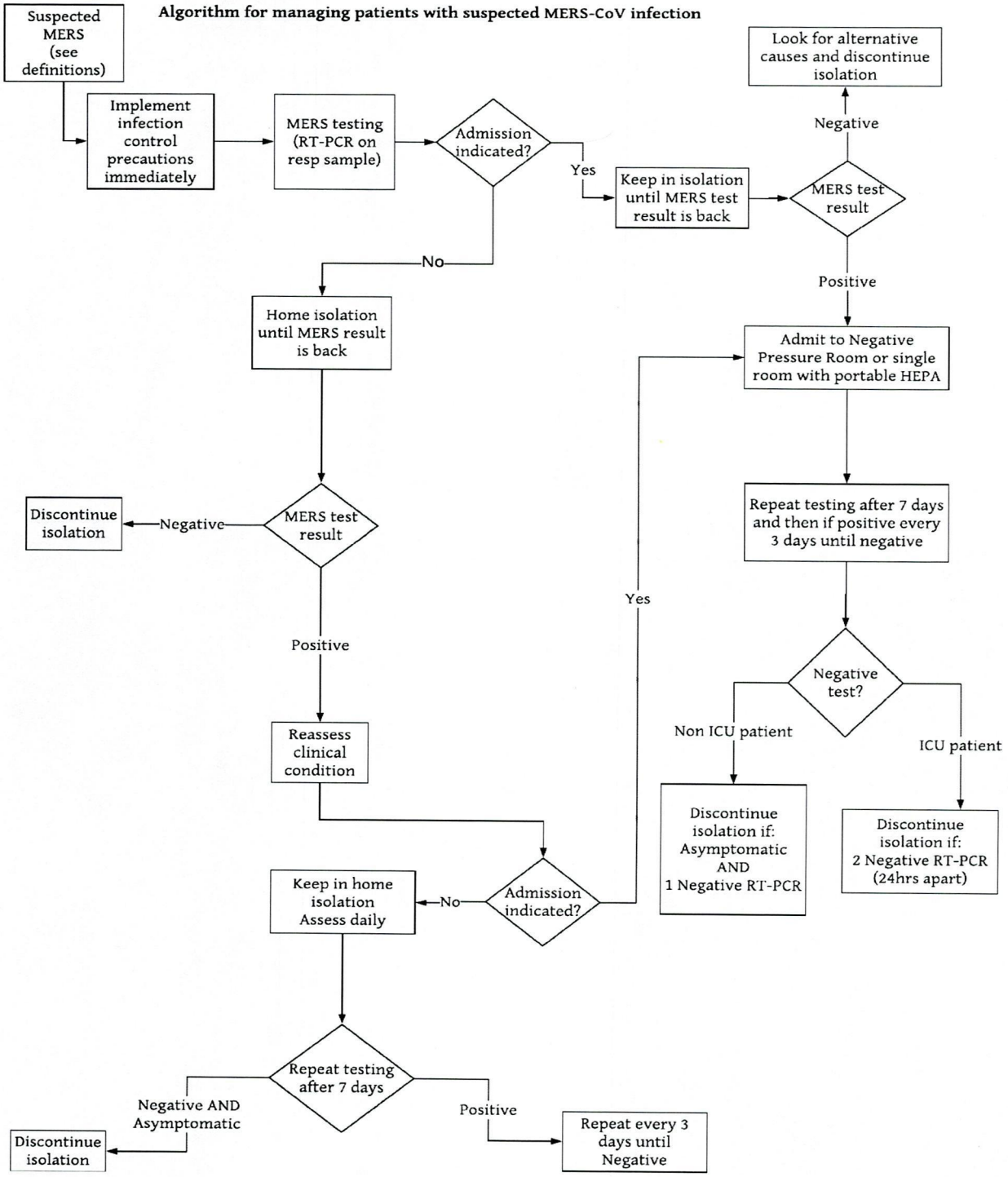
7.1 General Directorate of Health Affairs Riyadh Region, MOH Manual for MERS – CoV Update V.5 April 1, 2018.

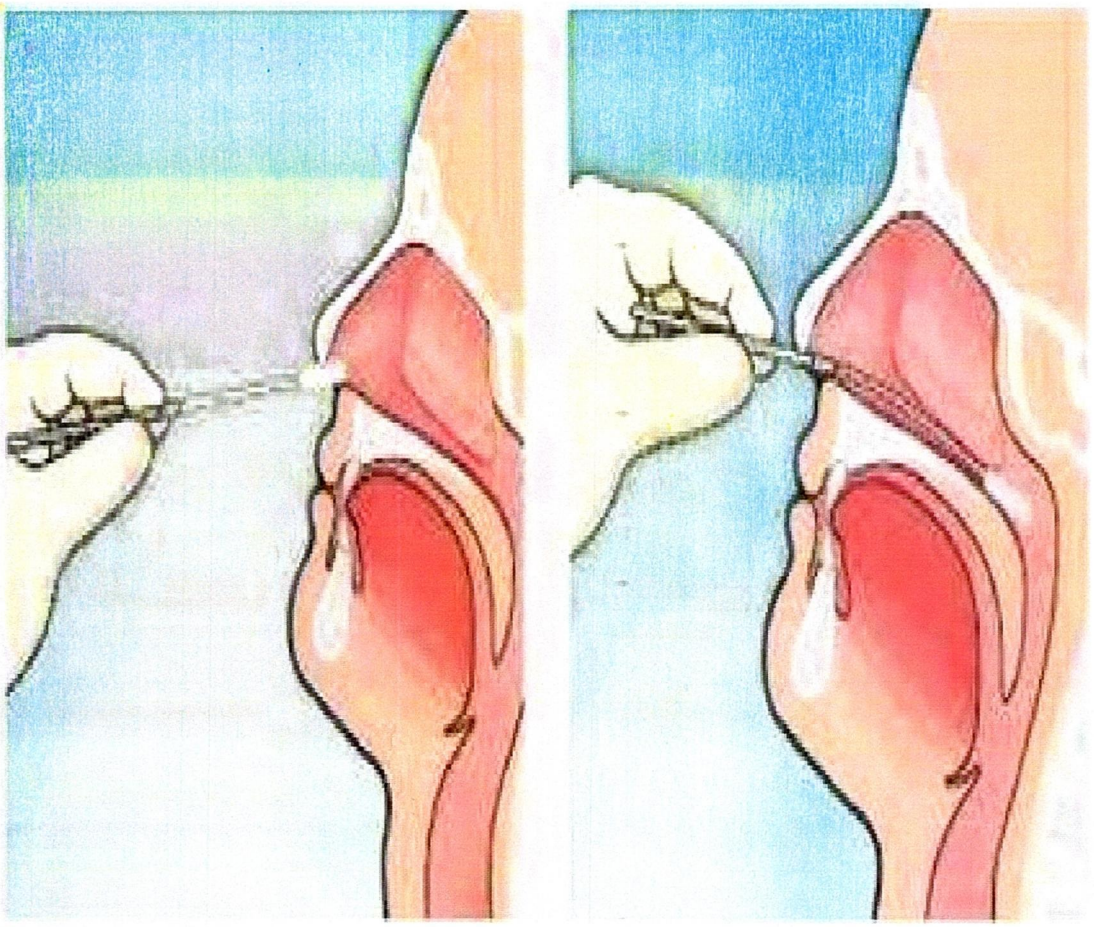
7.0 APPROVAL

	Name	Title	Signature	Date
Prepared by	Dr Sher Agha	Infection Control Head	DR. SHER AGHA	05 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR S.C.# 08-RN-8386	07 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No. 23 R-M-0046094	MAR 2019
	Mr. Khalid Bander Khalid Al Mutairi	Quality Director	Mr. Khalid B. Al Mutairi QM Director	MAR 2019
Approved by	Dr Adil Moteb Bin Omairah	Hospital Director		14 MAR 2019

8.0 POLICY AND PROCEDURE HISTORY

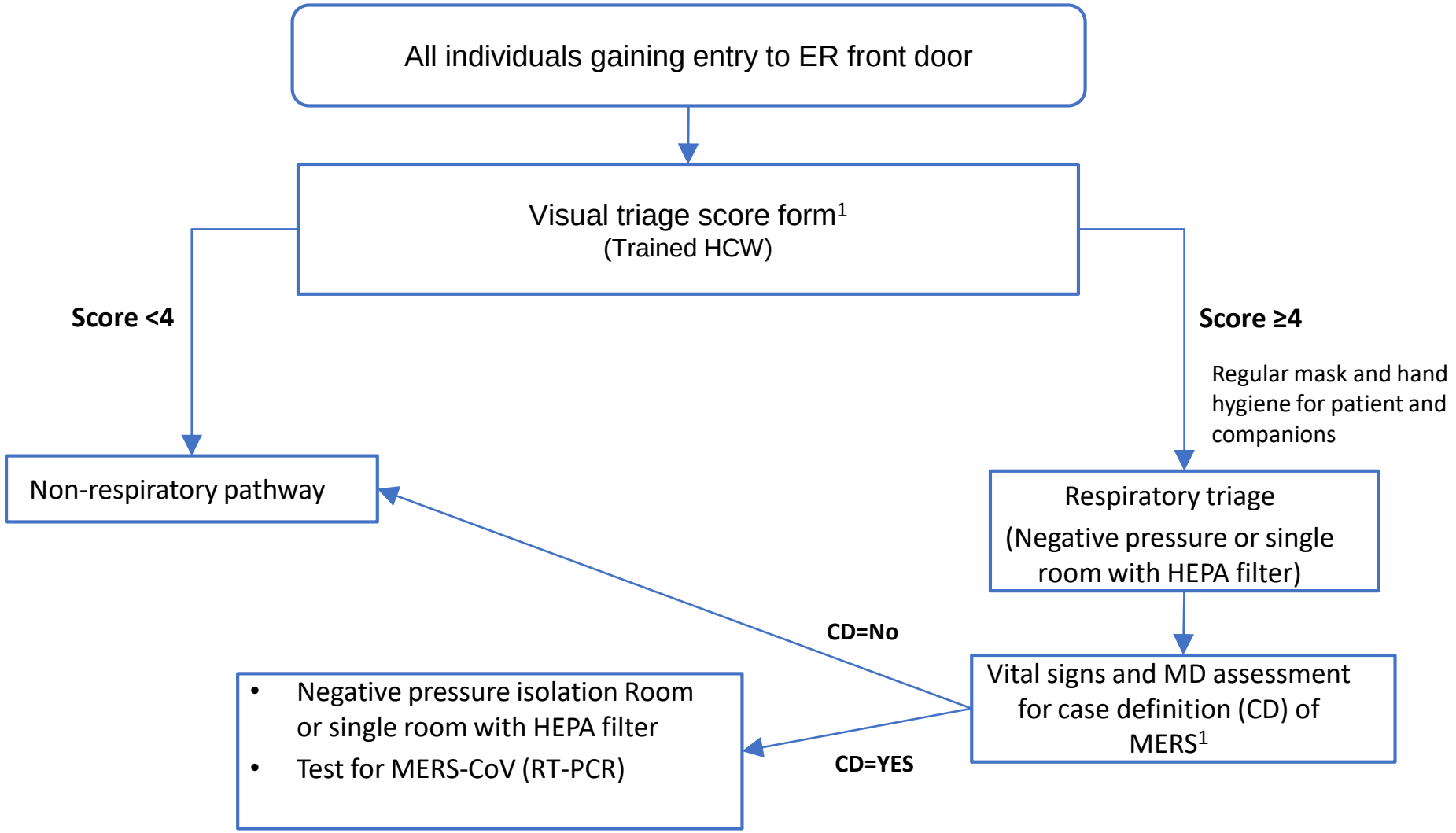
Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	APP-IC (2)	April 1,2016
Replaced by	APP-IC-033(3)	April 1, 2019
Deleted	APP-IC (2)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-033(3)	April 1, 2019


Algorithm for managing patients with suspected MERS-CoV infection
Suspected MERS (see definitions)
Implement infection control precautions immediately
MERS testing (RT-PCR on resp sample)
Admission indicated?
Yes
No
Keep in isolation until MERS test result is back
MERS test result
Negative
Look for alternative causes and discontinue isolation
Positive
Admit to Negative Pressure Room or single room with portable HEPA
Repeat testing after 7 days and then if positive every 3 days until negative
Negative test?
Non ICU patient
ICU patient
Discontinue isolation if: Asymptomatic AND 1 Negative RT-PCR
Discontinue isolation if: 2 Negative RT-PCR (24hrs apart)
Home isolation until MERS result is back
MERS test result
Negative
Discontinue isolation
Positive
Reassess clinical condition
Admission indicated?
Yes
No
Keep in home isolation Assess daily
Repeat testing after 7 days
Negative AND Asymptomatic
Positive
Discontinue isolation
Repeat every 3 days until Negative



إدارة الجودة

Identification of suspected MERS-CoV cases at ER



[1]MERS-CoV online guidelines (MOH, January 2017) http://www.gdipc.org/professionals.htmldocument

Visual Triage: Illness Checklist for MERS in Adults

Date: _____ **Time:** _____ **MRN:** _____

Name: _____ **National/Residence ID:** _____

Healthcare Facility name: _____ **Unit:** _____

	A. Clinical symptom/sign	**Points**
1	Fever (≥38°C)	**2**
2	Cough (New or worsening)	**2**
3	Shortness of breath (New or worsening)	**2**
4	Nausea, vomiting, diarrhea	**1**
5	Sore throat and/or runny nose	**1**
6	DM, Chronic renal failure, CAD/heart failure	**1**
	B. Risk of exposure to MERS	
7	Exposure to a confirmed MERS case in last two weeks	**3**
8	Exposure to camel or products (Direct or indirect*) in the last two weeks	**2**
9	Visit health care facility that has MERS case in last two weeks	**1**
	Total Score	

*Patient or household

A score ≥ 4, place patient in an isolation room and inform MD for assessment

Staff name: _____ ID number: _____

Visual Triage: Illness Checklist for MERS in Pediatrics

Date: _____ Time: _____ MRN: _____

Name: _____ National/Residence ID: _____

Healthcare Facility name: _____ Unit: _____

	A. Clinical symptom/sign	**Points**
1	Fever (≥38°C)	**1**
2	Cough (New or worsening)	**1**
3	Shortness of breath (New or worsening)	**1**
	B. Risk of exposure to MERS	
4	Exposure to a confirmed MERS case in last two weeks	**3**
5	Exposure to camel or products (Direct or indirect*) in the last two weeks	**2**
6	Visit health care facility that has MERS case in last two weeks	**1**
	Total Score	

*Patient or household

A score ≥ 4, place patient in an isolation room and inform MD for assessment

Staff name: _____ ID number: _____

VISUAL TRIAGE CHECKLIST

Visual Triage Checklist for Acute Respiratory Illness

Date: _____ Time: _____ MRN: _____

Patient Name: _____ ID #: _____ Hospital: _____

	Points (Adults	Points (Children)	Score
A. Clinical Symptoms / sign			
Fever	2	1	
Cough (New or worsening)	2	1	
Shortness of breath (new or worsening)	2	1	
Nausea, vomiting, diarrhea	1	-	
Sore throat and/or runny nose	1	-	
Chronic renal failure, CAD/heart failure	1	-	
B. Risk for exposure to MERS			
Exposure to a confirmed MERS case in the last two weeks	3	3	
Exposure to camel or products (Direct or indirect *) in the last two weeks	2	2	
Visit to a healthcare facility that had MERS case in the last two weeks	1	1	
Total Score			

*Patient or household

A Score ≥ 4, PLACE THE PATIENT IN AN ISOLATION ROOM AND INFORM MD FOR ASSESSMENT MERS COV TESTING SHOULD BE DONE ONLY ACCORDING TO CASE DEIFINITION

Staff Name: _____ ID Number: _____

KINGDOM OF SAUDI ARABIA

MINISTRY OF HEALTH

GENERAL DIRECTORATE OF HEALTH AFFAIRS RIYADH REGION

AFIF GENERAL HOSPITAL

TRIAGE SCREENING FORM (MERS COV).

Patient identification:

Name: _____

DOB: Higre: ____/_____/_____ **Gregorian:** _____/_____/_____

Gender: **Male:** _____ **Female:** _____

Nationality: Saudi: _____ **Non-Saudi:** _____

Identification: Saudi ID: _____ **Iqama No/Passport No:** _____

Hospital File No: _____

Occupation: Healthcare worker: _____ **Yes:** **No:**

Phone No: Home: _____ **Mobile No:** _____

Address: _____

Contact Person: Friend/Relative: _____

Phone: Home: _____**Mobile No:** _____

SIGN & SYMPTOMS:

A) Date of onset of symptoms: _____

B) Clinical characteristics:

- Severe pneumonia (severity score ≥3 points) *(Appendix A)* or ARDS (based on clinical or radiological evidence).
- Unexplained deterioration** of a chronic condition of patients with congestive heart failure or chronic kidney disease on hemodialysis.
- Acute febrile illness (T ≥38$_0$ C) with/without respiratory symptoms.
- Gastrointestinal symptoms (diarrhea or vomiting), AND leukopenia (WBC≤3.5x10$_9$ /L) or thrombocytopenia.
- Infectious disease consultant recommendations.
- Patient is asymptomatic.

C) OXYGEN SATURATION: _____ **CHEST EXAMINATION:** _____

D) CXR FINDING: _____

EPIDEMIOLOGICAL CRITERIA: Within 14 days before symptom onset:

1. Exposure*** to a confirmed case of MERS-CoV infection OR
2. Visit to a healthcare facility where MERS-CoV patients(s) has recently (within 2 weeks) been identified/treated OR
3. Contact with dromedary camels**** or consumption of camel products (e.g. raw meat, unpasteurized milk, urine).

ASSESSMENT:

a. **Pt under investigations: ---------- work up & observe**
b. **Probable case of MERS CoV, severe respiratory distress: ---------- Admit**
c. **No symptoms of respiratory disease but with travel history & close contact: ---------- work up & observe**

Reported By: _____ Date: ___/____/_____

KINGDOM OF SAUDI ARABIA
MINISTRY OF HEALTH

مدينة الملك عبدالعزيز الطبية
KING ABDULAZIZ MEDICAL CITY

Hospital: _____ المستشفى :

Unit: _____ الوحدة :

MRN: _____ ملف المريض الطبي :

NAME: _____ الاسم :

AGE: _____ العمر : GENDER: ☐ M ☐ F الجنس :

NATIONALITY: _____ الجنسية :

D.O.B: _____ تاريخ الميلاد :

CONSULTANT: _____ الإستشاري :

PCR REQUEST FOR CORONA

Illness Information

Onset date:	
Admission date:	
Signs and symptoms:	
Provisional diagnosis:	
Travel During last week: ☐ Yes ☐ No If yes, where?	
Contact with poultry? ☐ Yes ☐ No	
Contact with a flu patient? ☐ Yes ☐ No	
Physician in- charge:	Telephone Number:

Specimen information

1. Type of specimen collected:	
Specimen Number:	Collection date:
2. Type of specimen collected:	
Specimen Number:	Collection date:
Laboratory director	Telephone Number:

KINGDOM OF SAUDI ARABIA
MINISTRY OF HEALTH

Hospital: _____ المستشفى :

Unit: _____ الوحدة :

MRN: _____ ملف المريض الطبي :

NAME: _____ الاسم :

AGE: _____ العمر : GENDER: ☐ M ☐ F الجنس :

NATIONALITY: _____ الجنسية :

D.O.B: _____ تاريخ الميلاد :

CONSULTANT: _____ الإستشاري :

H1 N1

Illness Information

Onset date:	
Admission date: Signs and symptoms:	

Provisional diagnosis:

Travel During last week: ☐ Yes ☐ No
If yes, where?

Contact with poultry? ☐ Yes ☐ No

Contact with a flu patient? ☐ Yes ☐ No

Physician in- charge:	Telephone Number:

Specimen information

1. Type of specimen collected:	
Specimen Number:	Collection date:
2. Type of specimen collected:	
Specimen Number:	Collection date:
Laboratory director:	Telephone Number:

Ministry of Health
Kingdom of Saudi Arabia
General Directorate of Health Affairs Riyadh Region
Afif General Hospital
Infection Prevention & control Department

MERS Clearance Form

This form must be completed by the treating physician and filed in the patient chart prior to admission or discharge from the emergency room for ALL adult patients (>14 y of age)

Patient Name:

MRN:

Date/time of assessment: / /144__, _ _:_ _ AM/PM

The patient was assessed for the possibility of MERS infection as per standard case definition (below):

☐ ***This patient DOES NOT meet the standard case definition of MERS***

☐ ***This patient DOES Meet the standard case definition of MERS (follow infection control guidelines)***

TREATING PHYSICIAN

Name: Date:

SCFHS #: Signature:

STANDARD CASE DEFINITION

(Middle East Respiratory Syndrome Coronavirus; Guidelines for Healthcare Professionals - April 2018 - v 5.1)

Age	Clinical Presentation	Epidemiologic Link
Adults	I. Severe pneumonia (severity score ≥3 points) (Appendix A) or ARDS (based on clinical or radiological evidence)	Not required
Adults[2]	II. Unexplained deterioration[3] of a chronic condition of patients with congestive heart failure or chronic kidney disease on hemodialysis	Not required
Children and adults	III. Acute febrile illness (T ≥38^0 C) with/without respiratory symptoms OR IV. Gastrointestinal symptoms (diarrhea or vomiting), AND leukopenia (WBC≤3.5x10^9 /L) or thrombocytopenia (platelets < 150x109/L)	Within 14 days before symptom onset: 1. Exposure[4] to a confirmed case of MERS-CoV infection OR 2. Visit to a healthcare facility where MERS-CoV patients(s) has recently (within 2 weeks) been identified/treated OR 3. Contact with dromedary camels[5] or consumption of camel products (e.g. raw meat, unpasteurized milk, urine)

[1] All suspected cases should have samples collected for MERS-CoV testing (nasopharyngeal swabs or sputum, and when intubated, lower respiratory secretions)

[2] Adult is defined as > 14 years old

[3] Chronic renal failure and congestive heart failure patients may exhibit fever and presence of fluid overload may mask the radiological features of pneumonia

[4] Exposure is defined as a contact within 1.5 meters with a confirmed MERS-CoV patient.

[5] Exposure to camels include:

- Direct physical contact with camels or their surroundings (milking and handling excreta are especially risky), drinking raw camel milk or other unpasteurized products derived from camel milk, and handling raw camel meat.
- Indirect contact include casual contact with camel places like visiting camel market or farms without direct physical contact with camels, living with a household member who had direct contact with camels.

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICY NUMBER &VERSION
CURTAIN CHANGE POLICY			APP-IC-34 (3)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-34 (2)	4
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HOSPITAL STAFF	

1.0 PURPOSE:

1.1. To ensure the patient maintain privacy and dignity rights by providing suitable size curtains.

1.2. To meet the infection prevention requirements, and prevent contamination by ensuring that curtains are changed appropriately.

1.3. To provide guidelines for safe handling, disinfection and disposal of all contaminated and dirty curtains.

1.4. To provide guidelines for accessing curtains all the times.

2.0 DEFINITION(S):

2.1. Follow the manufacturer`s guidelines regarding the antimicrobial curtains.

3.0 POLICY STATEMENT(S):

3.1. All the patient beds and windows should be provided with appropriate and good quality curtains in accordance with infection control standards. All the curtains should be clean and matching in style and color.

4.0.EQUIPMENT/MATERIAL/FORMS:

4.1. Attachment 1: Housekeeping Cleaning Schedule

5.0.ROLES AND RESPONSIBILITIES:

5.1. Hospital Director

5.2. Chief Nurse

5.3 Head Nurse

5.4. Infection Control Department

5.5. FMS

6.0.PROCEDURE:

Minimum Cleaning Frequency for Bed Curtains			
Very High Risk	**High Risk**	**Significant Risk**	**Low Risk**
1. Change / clean weekly upon discharge	Change / Clean Monthly	Change / change biannually.	Clean / change annually.
2. Patient with MRO, or other infectious diseases: change bed curtains or clean upon discharge.	Change / clean upon discharge.	Change / clean upon discharge	If MRO or other infectious disease clean / change upon discharge.

7.0.RELATEDPOLICY / CROSS REFERENCES:

7.1. N/A

8.0.APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Nurse	DR. SHER AGHA	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR S.C.# 06-RN-9386	07 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	03 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No: 13-R-M-0046094	12 MAR 2019
	Mr. Khalid Bander Khalid Al Mutairi	Quality Director	Mr. Khalid B. AlMutairi QM Director	17 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		24 MAR 2019

9.0.POLICY AND PROCEDURE HISTORY

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	**APP-IC-34 (1)**	April 1, 2014
Replaced by	**APP-IC-34(2)**	April 1, 2016
Deleted	**APP-IC-34 (1)**	April 1, 2016
Replaced by New Policy and Procedure	**APP-IC-34 (3)**	April 1, 2019

Attachment 1: Housekeeping Cleaning Schedule

Date: _____
Department: _____

Antimicrobial curtains every 6 months or according to the manufacturer guidelines

CLOTHES CURTAIN

Note: change the clothes types of curtains according to the schedule but if the curtains are visibly dirty, torn or stained with blood or secretions change immediately.

From:
ICD

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
VISITORS POLICY FOR THE PATIENT ON ISOLATION			APP-IC-035(2)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-035(1)	11
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1 To give guidelines on how to manage and achieve compliance from approved sitters of patients in isolation as per the institution's policy and procedures.

2.0 POLICY STATEMENT:

2.1 visitors and sitters must abide by this policy to ensure the prevention of spread of infection within the facility and outside the hospital settings.

2.1.1 In general sitters are not allowed for the patient who are being treated in isolation (contact, airborne and droplet precaution). However, exception to this policy can be made after consultation and upon approval of the infection control department.

2.2 Every patient and the approved sitter in isolation must follow the standard and isolation precautions.

2.3 Compliance to all the infection and control policy connected to handling of the pt in isolation such as HH, standard precautions, isolation precautions, PPE instructions and other medical and nursing instructions must be applied all the times.

2.4 Hospital staff must educate the isolated pt and approved sitter (before going inside the pt`s room) all about the infection prevention and control rules and recommendations. Noncompliance of the sitter to the instructions given will result to the with drawl of the sitter authorization and he/she must be made aware of this consequence.

3.0 EQUIPMENT/MATER:

3.1 Education consent
3.2 personal protective equipment
3.3 sitter`s authorization card/ ID for isolation room.

4.0 ROLES AND RESPONSIBILITIES:

4.1 Healthcare Workers:

4.1.1 The Most Responsible Physician (MRP) or his/her designee is responsible for ensuring that the necessary education is given to the patient and sitter.

4.1.2 Each patient and sitter will be provided with specific information and will be given positive educational reinforcement in their language.
4.1.2.1 Evidence that this education has taken place will be documented in the patient's medical record by the physician.
4.1.2.2. The approved sitter will be informed at this time that sitter authorization will be withdrawn if isolation regulations are not followed.
4.1.2.3. The patient, sitter, and physician will sign the education consent form, and this form will be kept in the medical record as evidence that they agree to the isolation conditions.
4.1.3 Physicians, infection preventionist (IP), nurses, and health educators will share the responsibility of monitoring the compliance of the patient in isolation and his/her approved sitter
4.1.4. The Infection Prevention and Control department (IP&C) should be informed immediately of any breaches of compliance. The IP&C will recommend that further patient education should be given.
4.1.55. Any repeated breach of compliance should be referred to the IP&C, and the sitter's authorization can be withdrawn.
4.1.6. The Security Department will take whatever actions necessary to ensure that the patient in isolation and his/her approved sitter comply with infection control isolation precautions (if necessary).

4.2 Patients and Sitters:

4.2.1. It is the responsibility of every patient and his/her approved sitter to comply with all infection control rules and regulations (listed on the sign on the door or conveyed through medical/ nursing instructions).
4.2.2. It is the responsibility of the hospital staff to monitor the compliance of the patient in isolation and his/her allowed sitter with infection control isolation recommendations.
4.2.3. Patients and their sitters who receive education from the staff regarding infection control isolation recommendations and still do not comply with these recommendations will be subject to measures to enforce the standards and ensure their compliance.

4.3 Security department:

4.2.1 the security department will take over what ever action is necessary to ensure that the pt in isolation room and his/her approved sitter comply with the IP&C isolation precautions.

5.0 PROCEDURE:

5.1 Each pt and sitter will be provided with the specific information and will be given positive educational reinforcement in their language.
5.1.1 Evidence that this education has taken place will be documented in the pt`s medical record by the physician.
5.1.2 The approved sitter will be informed at this time that sitter authorization will be withdrawn if isolation regulations are not followed as stated in the policy.
5.1.3. The pt, sitter and the physician will sign the education consent and this will be kept in the medical record as evidence that they agreed to the isolation conditions.

5.2. The IP&C department should be informed immediately of any breaches of the compliance.

5.2.1. The IP&C department will recommend that further pt education should be given.

5.3. Any repeated breach of compliance should be referred to the IP&C department and the sitter`s authorization can be withdrawn.

6.0 RELATED POLICY/ CROSSED REFERENCES:

6.1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 29: Isolation precautions. In APIC Text of infection control and epidemiology (4th ed.).
6.2. HICPAC/CDC Guidelines for isolation precautions: preventing transmission of infectious agents in healthcare setting, 2007.

7.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Ms. Mirriam Liquanan	Infection Control Nurse	MIRRIAM F. LICUANAN RN 0281568 #1484454	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR S.C.# 0281568386	05 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	07 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC.No: 13-R-M-0046094	12 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director	Mr. Khalid Bandar Al Mutairi QM Director	17 MAR 2019
Approved by	Dr. Adil Moteb Bib Omairah	Hospital Director		24 MAR 2019

8.0 POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	APP-IC-035(1)	April 1, 2016
Replaced by	APP-IC-035(2)	April 1, 2019
Deleted	APP-IC-035(1)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-035(2)	April 1, 2019

Infection prevention and control department
Education consent for the patient and sitters/visitors in isolation rooms.

When pt have or is suspected of having the infectious or communicable disease, precautions are taken to prevent its spread.
The following are the rules that must be followed by the pt and approved sitter.
Failure of the sitter to comply with the rules will result to the withdrawal of the sitter`s authorization ID and she/he can no longer be allowed to stay inside the pt room.
Failure of the pt or visitor to comply with the rule will result to disallowing pt to receive visitors while on isolation room.

GENERAL RULES:

1.0 Doors should be closed all the times
2.0 No visitor that are less than 14 years old are allowed: family/friends/relatives who are sick or feeling sick or is not immune to your illness are not allowed to visit or to stay as a sitter\ (as they may be at risk of picking up an infection more easily).

AIRBORNE ISOLATION PRECAUTIONS

Are used when you have or may have lung or throat infection or virus such as chickenpox, measles, tb, mers cov or others that can be spread via tiny droplets in the air from your mouth or nose. these germs may stay suspended in the air and can be spread to the others.one of the precautions that may be taken is called airborne precaution. this means your room will have a negative air pressure. When the door to your room is open, airflow into your room but won`t flow out of your room into the hall.

HEALTH CARE WORKERS:

Should clean the hands between the tasks and upon entering and exiting your room.
Should wear the needed PPE to prevent the contamination when entering the room and remove these properly before leaving the room.
Will put a sign on your room door to let the staff and visitor know what to do before entering the room.

FOR THE PT:

1. clean the hands frequently, especially after coughing and sneezing.
2. Be sure visitors read the sign on your door and are wearing the mask.
3. Leave only your room when medically necessary and wear a mask when you do.
4. Limit your visitors to 1 or 2 only and don`t allow them stay longer in your room.

FOR THE VISITOR/SITTER:

1. see nurse in nurse station before entering the pt`s room for few instructions on PPE to wear and how to remove.
2. Clean the hands after the pt or pt`s surroundings and when entering and leaving the room.

3. Confirm that you have been vaccinated or have had the pt`s disease to develop immunity.
4. sitter/visitor are not allowed to eat inside the isolation room or with the isolated pt.
5. if the visitor needs to use the toilet while visiting, they need to use the designated visitor's toilet located outside the room. (ask the nurse for direction).
6. Go to the nurse`s station if you have any questions.

I/we understood what the Dr. and nurse had discussed with us & agreed to follow the rules;
patient/sitter`s signature: _____

General rules & isolation precaution was explained well and made understandable to the patient & visitors/sitter.
Physician signature: _____
Nurse's signature: _____
Date: _____

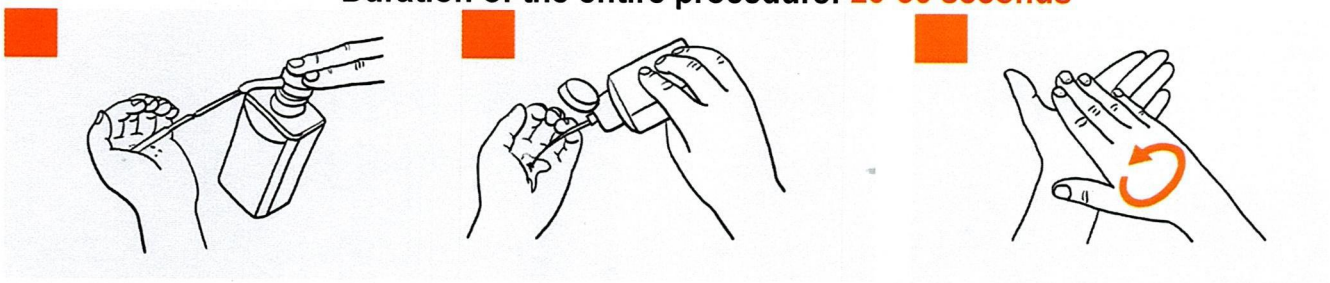
Hand Rubbing Technique

Hand Hygiene Technique with Alcohol - Based Formulation

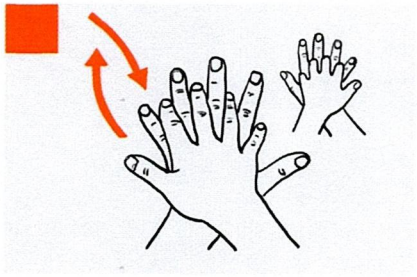
How to Hand rub?

RUB HANDS FOR HAND HYGIENE! WASH HANDS WHEN VISIBLY SOILED

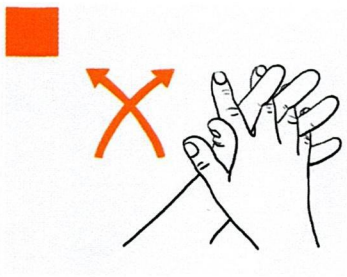
Duration of the entire procedure: 20-30 seconds



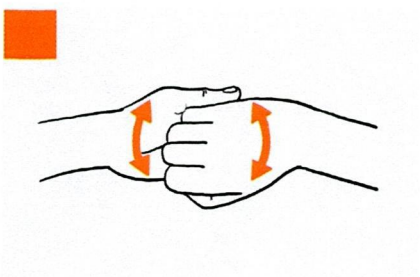
Apply a palmful of the product in a cupped hand, covering all surfaces.



. Right palm over left dorsum with interlaced fingers and vice

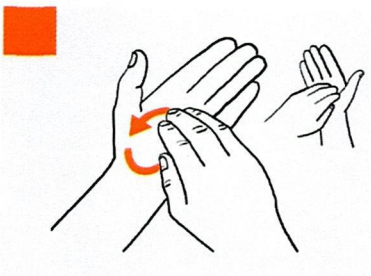


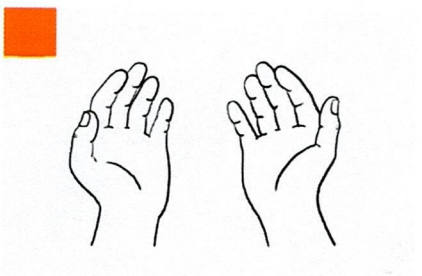
Palm to palm with fingers interlaced.



Back of fingers to opposing palms







وزارة الصحة
Ministry of Health
الإدارة العامة لمكافحة عدوى المنشآت الصحية
General Directorate for Infection prevention and Control

TRANSPORTATION CARD

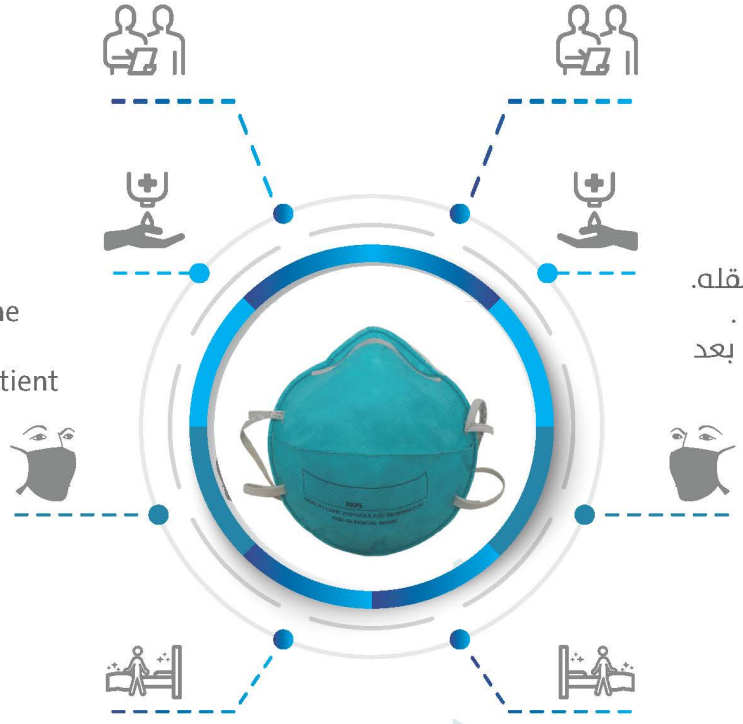
AIRBORNE PRECAUTIONS العزل الهوائي

1. Notify the receiving unit/ward/department (Diagnosis, Type of Isolation Precautions).

2. **Prepare the patient for transportation :**
   - Patient should wear surgical mask.
   - Educate the patient about respiratory hygiene (Cough Etiquette).
   - HCW should perform hand hygiene after patient transport.

3. If the patient can not tolerate wearing a **surgical mask**, during transportation healthcare workers should wear the fitted **N95 respirator**.

4. Staff should disinfect the patient bed/ wheeled chair using MOH approved disinfectant.



Use N95 respirator

1. ابلاغ القسم المستلم (التشخيص - نوع العزل) .

2. **يجب أن يتم تحضير المريض للنقل كما يلي:**
   - أن يستخدم المريض الكمام الجراحي العادي أثناء نقله.
   - تثقيف المريض عن العناية التنفسية (آداب السعال) .
   - يجب على الممارس الصحي ممارسة نظافة الايدي بعد الإنتهاء من نقل المريض .

3. فى حاله عدم امكانية إرتداء المريض للكمام الجراحي الطبي العادي يجب على الممارس الصحي استخدام الكمام التنفسي عالي الكفاءة (N95) أثناء عملية النقل .

4. يجب على الممارس الصحي تطهير السرير أو الكرسي المتحرك المستخدم لنقل المريض بعد النقل باستخدام المطهرات المعتمدة في وزارة الصحة.



وزارة الصحة
Ministry of Health
الإدارة العامة لمكافحة عدوى المنشآت الصحية
General Directorate for Infection Control of Health Facilities

احتياطات العزل الهوائي
AIRBORNE PRECAUTIONS

يجب على الزوار مراجعة مكتب التمريض قبل الزيارة
VISITORS : Report to nurse's station before entring the room

All HCWs and visitors must do the following:

على جميع الممارسين الصحيين و الزوار اتباع التالي:

Before patient room entry :
1- Practice hand hygiene .
2- Wear N95 respirator .

قبل دخول الغرفة :
1- ممارسة نظافة الايدي.
2- ارتداء الكمام التنفسي عالي الكفاءة .



Before exit from patient room :
1- All personal protective equipment must be removed except N95 respirator and discarded as medical waste.

قبل الخروج من غرفة المريض :
1- يتم خلع مستلزمات الوقاية الشخصية ماعدا الكمام التنفسي عالي الكفاءة والتخلص منها في حاوية النفايات الطبية .

After exit from patient room :
1- Remove N95 respirator and discard as medical waste.
2- Practice hand hygiene .

بعد الخروج من غرفة المريض :
1- يتم خلع الكمام التنفسي عالي الكفاءة والتخلص منه في حاوية النفايات الطبية .
2- ممارسة نظافة الايدي.

الإدارة العامة لمكافحة عدوى المنشآت الصحية
General Directorate for Infection prevention and Control

Infection prevention and control department

Education consent for the patient and sitters/visitors in isolation rooms.

When pt have or is suspected of having the infectious or communicable disease, precautions are taken to prevent its spread.

The following are the rules that must be followed by the pt and approved sitter.

Failure of the sitter to comply with the rules will result to the withdrawal of the sitter`s authorization ID and she/he can no longer be allowed to stay inside the pt room.

Failure of the pt or visitor to comply with the rule will result to disallowing pt to receive visitors while on isolation room.

GENERAL RULES:

1.0 Doors should be closed all the times

2.0 No visitor that are less than 14 years old are allowed: family/friends/relatives who are sick or feeling sick or is not immune to your illness are not allowed to visit or to stay as a sitter\ (as they may be at risk of picking up an infection more easily).

CONTACT PRECAUTIONS

are used when you have a harmful germ that can be spread by when the people touch you or your environment or your surroundings.

HEALTH CARE WORKERS

1. should clean the hands frequently.
2. should wear the gloves and gowns when entering the room and remove these properly before leaving the room.
3. will put a sign on your room door to let the staff and visitors knows what to do before entering the room.

For the patient

1. clean your hands frequently.
2. be sure the visitors read the sign on your door.
3. limit your visitors to 1 or 2 only and don`t allow them stay longer in your room.

FOR THE VISITORS/SITTERS

1. see nurse in nurse station before entering the pt`s room for few instructions on PPE to wear and how to remove.
2. Clean the hands after the pt or pt`s surroundings and when entering and leaving the room.
3. Avoid contact with the dressings, tubes, bed sheets and other items the pt may touch or have touched.
4. Don`t go to the rooms of other pts.
5. Go to the nurse station if you have a question.

I/we understood what the Dr. and nurse had discussed with us & agreed to follow the rules;

patient/sitter`s signature: _____

General rules & isolation precaution was explained well and made understandable to the patient & visitors/sitter.

Physician signature: _____

Nurse's signature: _____

Date: _____

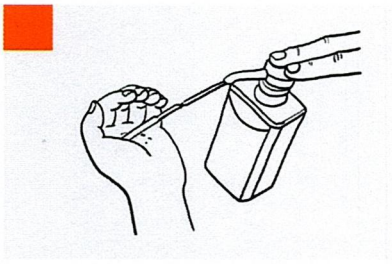
Hand Rubbing Technique

Hand Hygiene Technique with Alcohol - Based Formulation

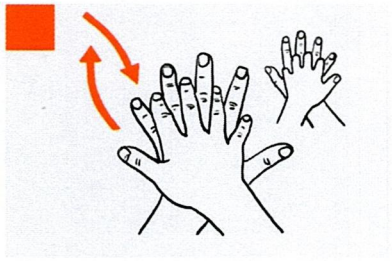
How to Hand rub?

RUB HANDS FOR HAND HYGIENE! WASH HANDS WHEN VISIBLY SOILED

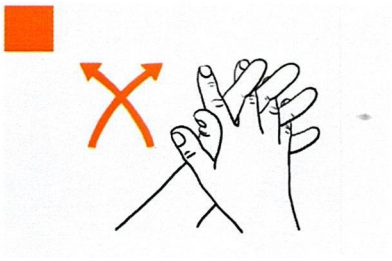
Duration of the entire procedure: 20-30 seconds



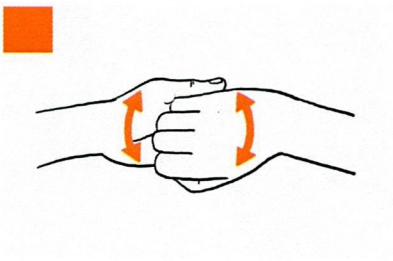
Apply a palmful of the product in a cupped hand, covering all



. Right palm over left dorsum with interlaced fingers and vice

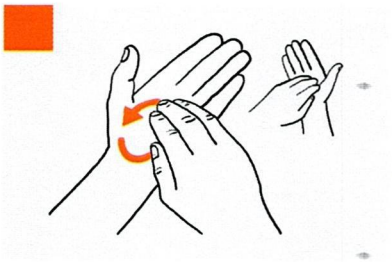


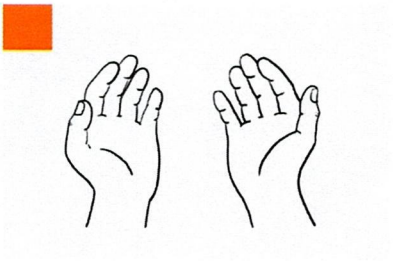
Palm to palm with fingers interlaced.



Back of fingers to opposing







وزارة الصحة
Ministry of Health
الإدارة العامة لمكافحة عدوى المنشآت الصحية
General Directorate for Infection prevention and Control

TRANSPORTATION CARD

CONTACT PRECAUTIONS العزل التلامسي

1 Notify the receiving unit/ward/department (Diagnosis, Type of Isolation Precautions).

2 **Prepare the patient for transportation :**

- Dress wounds with impervious dressings.
- Dress the patient in a clean gown.
- Cover patient with clean sheet.
- HCW should wear clean gloves and perform hand hygiene after taking off .

3 Staff should disinfect the patient's bed / wheeled chair using MOH approved disinfectant.



Use clean gloves

1 إبلاغ القسم المستلم (التشخيص - نوع العزل).

2 **يتم تحضير المريض للنقل كما يلي:**

- تغطية جروح المريض بضماد غير منفذ للسوائل.
- إرتداء المريض لرداء طبي نظيف.
- تغطية المريض بملاءة نظيفة.
- يجب على الممارس الصحي إرتداء القفازات النظيفة ونزعها بعد الإنتهاء من نقل المريض وممارسة تطهير الأيدي.

3 يجب على الممارس الصحي تطهير السرير/ الكرسي المتحرك المستخدم لنقل المريض بعد النقل باستخدام المطهرات المعتمدة بوزارة الصحة.



وزارة الصحة
Ministry of Health
الإدارة العامة لمكافحة عدوى المنشآت الصحية
General Directorate for Infection Control of Health Facilities

إحتياطات العزل التلامسي
CONTACT PRECAUTIONS

يجب على الزوار مراجعة مكتب التمريض قبل الزيارة
VISITORS : Report to nurse's station before entring the room

على جميع الممارسين الصحيين و الزوار اتباع التالي:

All HCWs and visitors must do the following:

قبل دخول الغرفة او منطقة المريض:

1- ممارسة نظافة الايدي.

2- ارتداء مريول العزل و القفازات .

before patient room or care area entry :

1- Practice hand hygiene .

2- Wear isolation gown and gloves.



قبل الخروج من غرفة المريض أو منطقة المريض:

1- يتم خلع مريول العزل والقفازات والتخلص منها في حاوية النفايات الطبية .

2- ممارسة نظافة الايدي.

before exit from patient room or care area :

1- Remove gown and gloves and discard as medical waste.

2- Practice hand hygiene .

Education consent for the patient and sitters/visitors in isolation rooms.

When pt have or is suspected of having the infectious or communicable disease, precautions are taken to prevent its spread.

The following are the rules that must be followed by the pt and approved sitter.

Failure of the sitter to comply with the rules will result to the withdrawal of the sitter`s authorization ID and she/he can no longer be allowed to stay inside the pt room.

Failure of the pt or visitor to comply with the rule will result to disallowing pt to receive visitors while on isolation room.

GENERAL RULES:

1.0 Doors should be closed all the times

2.0 No visitor that are less than 14 years old are allowed: family/friends/relatives who are sick or feeling sick or is not immune to your illness are not allowed to visit or to stay as a sitter\ (as they may be at risk of picking up an infection more easily).

DROPLET PRECAUTIONS

are used when you have or you may have germs in your lungs or throat, such as those caused by the flu, that can be spread by droplets from your mouth or nose when you speak, sneeze, or cough as well as when the people touch the surfaces around you.

Health care worker

1. should clean the hands frequently
2. should wear a mask and eye protection when entering the room and remove these properly when leaving the room.
3. will put a sign on your room door to let the staff and visitors knows what to do before entering the room.

(Mask outside your room door must be available for the HCWs and visitors.

For the pt

1. clean the hands frequently after coughing and sneezing.
2. be sure that the visitors entering your room have read the sign posted on your door and are wearing the surgical mask.
3. Leave only room when medically necessary.
4. Limit your visitors to 1 or 2 only and don`t allow them to stay longer in your room.

Visitors/sitters

1. Clean the hands frequently and upon entering and exiting the room
2. Wear a mask and an eye protection when entering the room and remove these properly while leaving the room.
3. Go to the nurse station if you have a question.

patient/sitter`s signature: _____

General rules & isolation precaution was explained well and made understandable to the patient & visitors/sitter.

Physician signature: _____

Nurse's signature: _____

Date: _____

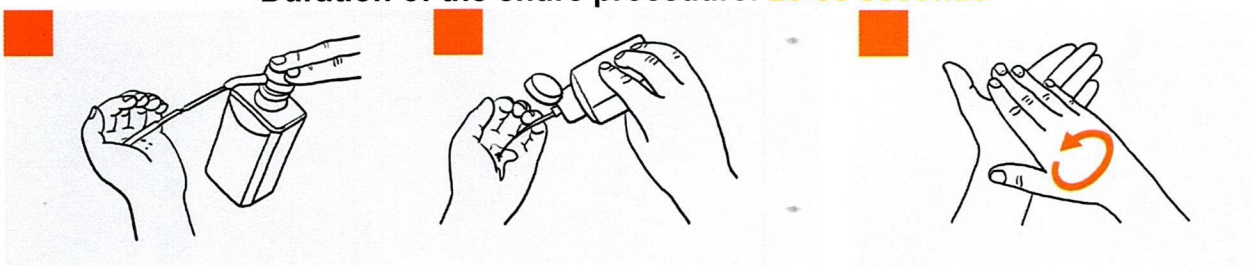
Hand Rubbing Technique

Hand Hygiene Technique with Alcohol - Based Formulation

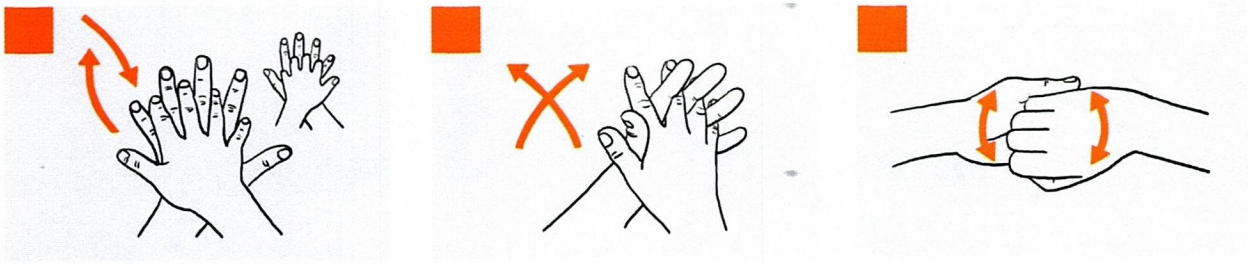
How to Hand rub?

RUB HANDS FOR HAND HYGIENE! WASH HANDS WHEN VISIBLY SOILED

Duration of the entire procedure: 20-30 seconds



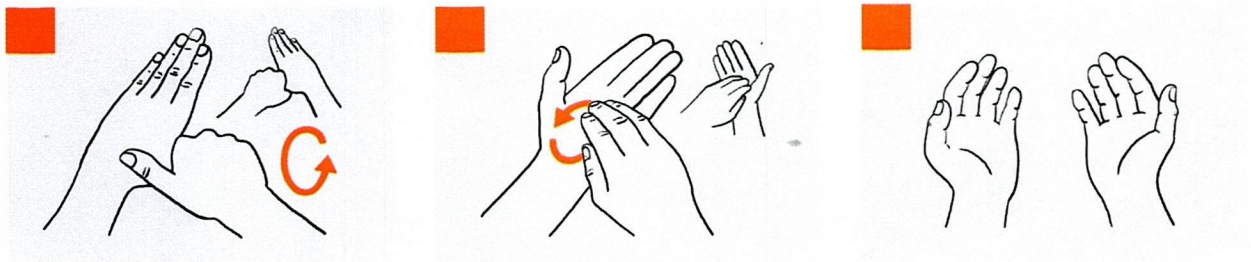
Apply a palmful of the product in a cupped hand, covering all



. Right palm over left dorsum with interlaced fingers and vice

Palm to palm with fingers interlaced.

Back of fingers to opposing





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Ministry of Health
الإدارة العامة لمكافحة عدوى المنشآت الصحية
General Directorate for Infection Control of Health Facilities

احتياطات العزل الرذاذي
DROPLET PRECAUTIONS

يجب على الزوار مراجعة مكتب التمريض قبل الزيارة
VISITORS : Report to nurse's station before entring the room

على جميع الممارسين الصحيين و الزوار اتباع التالي:

All HCWs and visitors must do the following:

قبل دخول الغرفة أو منطقة المريض:

1- ممارسة نظافة الأيدي.

2- ارتداء الكمام الجراحي العادي .

before patient room or care area entry :

1- Practice hand hygiene .

2- Wear a surgical Mask .



قبل الخروج من غرفة المريض أو منطقة المريض:

1- يتم خلع الكمام الجراحي العادي والتخلص منه في حاوية النفايات الطبية .

2- ممارسة نظافة الأيدي.

before exit from patient room or care area :

1- Surgical Mask must be removed and discarded as medical waste.

2- Practice hand hygiene .

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Ministry of Health
الإدارة العامة لمكافحة عدوى المنشآت الصحية
General Directorate for Infection prevention and Control

TRANSPORTATION CARD

DROPLET PRECAUTIONS العزل الرذاذي

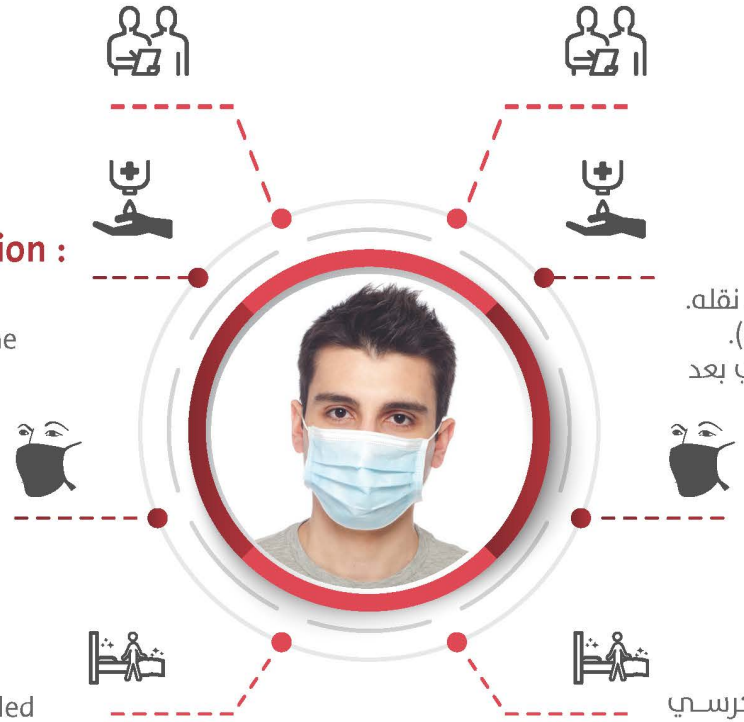
1 Notify the receiving unit/ward/department (Diagnosis, Type of Isolation Precautions).

2 **Prepare the patient for transportation :**

- Patient should wear a surgical mask.
- Educate the patient about respiratory hygiene (Cough Etiquette).
- HCW should perform hand hygiene after patient transport.

3 If the patient can not tolerate wearing a **surgical mask**, HCW should wear a surgical mask during transportation.

4 Staff should disinfect the patient bed/ wheeled chair using MOH approved disinfectant.



Use surgical or medical masks

1 ابلاغ القسم المستلم (التشخيص - نوع العزل).

2 **يجب أن يتم تحضير المريض للنقل كما يلي:**

- أن يستخدم المريض الكمام الجراحي العادي أثناء نقله.
- تثقيف المريض عن العناية التنفسية (آداب السعال).
- يجب على الممارس الصحي ممارسة نظافة الايدي بعد الإنتهاء من نقل المريض.

3 يجب على الممارس الصحي استخدام الكمام الجراحي العادي أثناء عملية النقل فى حاله عدم امكانية إرتداء المريض للكمام الجراحي الطبي العادي.

4 يجب على الممارس الصحي تطهير السرير أو الكرسي المتحرك المستخدم لنقل المريض بعد النقل باستخدام المطهرات المعتمدة في وزارة الصحة.

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
APPROVED ANTISEPTICS, SOAP AND DISINFECTANTS			APP-IC-036(2)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-036(1)	5
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HEALTHCARE WORKERS OF AFIF GENERAL HOSPITAL	

1.0 PURPOSE:

1.1. To ensure that the hospital has a defined system that guarantees the disinfectant of choice and are used in accordance with the current recommended practice.
1.2. To provide guidelines in proper use of antiseptic and disinfectants in the hospital.

2.0. DIFINITION(S):

2.1. ***Material data safety sheet (MSDS)***- detain information on a chemical and it`s hazards to promote the safe handling of all hazardous materials and waste in order to minimize the potential for spills, leaks or other situation that might cause harm to the patients, visitors and environment.

2.2. DISINFECTANTS:

A chemical compound used to inactivate the vegetative microorganism but not all microbial forms.

3.0. POLICY STATEMENT(S):

3.1. All hospital antiseptics and disinfectants must be approved for use in accordance with current recommended practice.
3.2. All the hospital antiseptics and disinfectants must be approved by the infection control committee.
3.3. All chemicals used in the hospital must be included in the MSDS and to be distributed to all the departments.
3.4. All the HCWs and house keeping personnel must be oriented regarding the use of chemicals and MSDS.
Note: All the antiseptics solutions, soap and disinfectants are provided by the ministry of health medical supply department and the infection control department has no role in purchasing any items. So, we are using the Moh approved antiseptics and disinfectants.

4.0. EQUIPMENT/MATERIAL/FORMS:

4.1. Approved antiseptics, soap and disinfectants.
4.2. PPE.
4.3. Hand Hygiene facilities.

5.0. ROLES AND RESPOSIBILITIES:
5.1. The infection control team is responsible for the review of equipment and supplies used for sterilization and disinfectants.
5.2. It is the responsibility of the infection control team to supervise all the HCWs and housekeeping personnel in using the disinfectants and MSDS.
5.3. The safety committee is responsible on annual review and approval of antiseptics and disinfectants in the hospital (we received all the items from the moh already approved there).

6.0 PROCEDURE:

6.1. SEPTIC AGENTS AND THEIR USES:

6.1.1. Hand hygiene preparations
6.1.1.1. waterless hand cleaner (EZ clean) should be frequently used to achieve a rapid kill of the transient organisms and particularly where there are no facilities for traditional hand washing. Avoid this method if your hands are visibly soiled.
6.1.1.2. Povidone- iodine solution 7.5%.
6.1.1.3. HI scrub- Antiseptic soap.
6.1.1.4. Avoscrub antiseptic lotion- chlorhexidine gluconate 1%w/w ethyl alcohol 61%.

6.1.2. ANTISEPTIC SKIN PREPARATIONS:

6.1.2.1. chlorhexidine gluconate 4%. Surgical preparation.
6.1.2.2. Povidone- Iodine scrub 10% solution. Surgical preparation.
6.1.2.3. Isopropyl Alcohol 70%.
6.1.2.4. Ethyl Alcohol 95%.

6.1.3. WOUND ANTISEPTICS:

6.1.3.1. Hex amide (chlorhexidine gluconate 1.5% + cetrimide 1.5%) for cleaning of the dirty and contaminated wounds.

6.1.4. INSTRUMENT STERILIZATION AND HIGH-LEVEL DISINFECTION:

6.1.4.1. Critical items which will be implanted or enter the tissue or vascular system should be purchased sterile or be sterilized using steam sterilization.
6.1.4.2. semi critical items which come into contact with mucous membrane or non-intact skin minimally require high-level disinfection with chemical germicides.

6.1.4.3. Non critical items which comes into contact with intact skin may be treated with low level disinfection-glass, thermometer.

6.1.5. ENVIRONMENTAL CLEANING/HOUSEKEEPING AGENTS:

6.1.5.1. Azomax Wipes- surface disinfectant.
6.1.5.2. Surfa`safe- disinfectant detergent for floor and walls.
6.1.5.3. surfinios- floors and walls disinfectant.
6.1.5.4. Dettol disinfectant- for cleaning of the washroom's bowls, sinks and flush and commodes.
6.1.5.5. Medisol Spray- surface disinfectant. (chlorhexidine gluconate 0.5% and isopropyl alcohol 70%)
6.1.5.6. S.S.D.D. surface disinfectant (quaternary ammonium propionate).
6.1.5.7. Sodium Hypochlorite (bleach- 1:10 dilution) is used to disinfect environmental surfaces after spilled blood carefully absorbed and appropriately removed. A 5-10 minutes contact time is required when cleaning the areas contaminated by blood.
6.1.5.8. Air fresheners/deodorizers may be used for order control.

7.0. RELATED POLICY/ CROSS REFERENCES:

Infection control items from the ministry of health central supply department.
APIC text book 4th edition.

8.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Ms. Mirriam Liquanan	Infection Control Nurse	MIRRIAM V. LICUANAN RN 0281568	03 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR	06 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	11 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No: 19-R-M-0046094	19 MAR 2019
	Mr. Khalid Bandar Khalid Al Mutairi	Quality Director		
Approved by	Dr. Adil Moteb Bib Omairah	Hospital Director		24 MAR 2019

9.0 POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	APP-IC-036(1)	April 1, 2016
Replaced by	APP-IC-036(2)	April 1, 2019
Deleted	APP-IC-036(1)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-036(2)	April 1, 2019

Approved Antiseptics and Disinfectants by MOH

Surface Disinfectants

Name	Code	Composition	Unit
Naph Care Spray 	550073948	Alcohol 70%	Bottle
Hama – Surf Spray 	550073943	Quaternary ammonium Cocospropylenediamine-1,5-bisguanidiumacetate and N,N-Didecyl-N-methylpoly(oxyethyl)Ammonium Propionate	Bottle
Dry Wipes 	135280469	85% Propylene 15% Viscos	Packet
Alpron 	1266500	for the continuous maintenance of the water quality in treatment water lines (including instruments and tumbler filler) of medical and dental units. Approved by notable dental unit manufacturers, among others Dentsply Sirona	Bottle

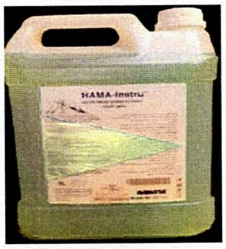
Kingdom of Saudi Arabia
Ministry of Health
General Directorate of Health Riyadh Region
Afif General Hospital
Infection Prevention & Control Department

Floor Disinfectants

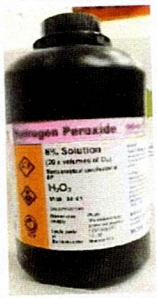
Name	Code	Composition	Unit
Hama – Surf 	550073954	Concentrated Quaternary Ammonium Compounds	Galloon
Quneex,Total 	Housekeeping Supply	Sodium Hypochloride 5.25%	Bottle
Dettol 	Housekeeping Supply(**for toilet ONLY**) ***Do not use in NICU**	Chloroxylenol	Bottle
Blood and body fluids Spill Kit	137200444	Set pack body fluid (Blood,Urine & Vomit) -Non sterile gown -Non powdered Latex or vinyl gloves -Face shield -Scoop and scraper -Paper towels -Waste bag(not less than 80 micron thickness,yellow with biohazard label) -(50mg super absorbent granules)NaDCC	Piece

		-Chlorine tablets with bottle for dilution -Easy to follow illustrated instructions on pack -All contents are enclosed in plastic bag secured single usewith biohazard lable and blood spill kit clearly written on the bag(single use)	
Gento 	Housekeeping Supply	Water,non ionic Surfactant, Secondary Alcohol,Quaternary Ammonium Compound,Ethylenediaminetetraacetic Acid, Preservative, Fragrance and Color	Bottle

Surgical Instruments Disinfectants

Name	Code	Composition	Unit
BIB forte, HAMA instrument 	1226650073	Quaternary ammonium compounds	Galloon
Ortho – Phthalic Aldehyde Solution 	552033431	Orthopthadhyde solutions 0.55%	Galloon

Antiseptics

Name	Code	Composition	Unit
Antiseptic Skin Cleanser (SinAqua) 	133060718	2% Chlorhexidine	Packet
Hydrogen Peroxide 	552033440	Hydrogen Peroxide 6%(H2O2)	Bottle
Alcohol Prep Pad 	137200413	70% Isopropyl Alcohol 2% Chlorohexidine	Piece
Alcohol Gel Bed Mounted 	552033524	Ethanol 70-80%V/V, Glycerine 1%W/V, Lemon Perfume Oil 0.006%W/V, Vitamin E 0.02%	Bottle

Alcohol Gel Wall Mounted 	552033522	Ethanol 70-80%V/V, Glycerine 1%W/V, Lemon Perfume Oil 0.006%W/V, Vitamin E 0.02%	Bag
Hand washsoap 	550073956	Sodium Laureth Sulfate,Cocamidopropyl Betain,Coconut DEA,Citric Acid,Sodium Chloride,EDTA,Perfume,DMDM Hydantoin,Methylchloroisothiazolinone,Mehtylisothiazolinone & Purified water	Bag
Pocket Alcohol Gel  C	552033525	Ethanol 70-80%V/V, Glycerine 1%W/V, Lemon Perfume Oil 0.006%W/V, Vitamin E 0.02%	Piece

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
ANTIMICROBIAL SURGICAL PROPHYLAXIS			APP-IC-037(2)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 1, 2022	APP-IC-037(1)	7
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		FOR ALL THE DEPARTMENTS OF AFIF GENERAL HOSPITAL	

1.0 DEFINITION:

Antimicrobial prophylaxis is used to reduce the incidence of post-operative wound infection and is generally indicated for the following types of operation:

1.1 Clean- contaminated: operative wound in which the respiratory, alimentary, genital or urinary tract is entered under controlled conditions without unusual contamination. Specifically, operations involving the biliary tract, appendix, vagina and oropharynx are included in this category, if no evidence of infection or major break in the technique is encountered.

1.2. Clean: non-infected operative wounds in which no inflammation is encountered and the respiratory, alimentary, genital or uninfected urinary tract is entered. Example, an intravascular prosthesis or prosthetic joint is inserted, cardiac operations including pace maker placement and vascular surgery, and most neurosurgical operations.

Antimicrobial prophylaxis is not indicated for an operation classified as dirty or contaminated. Additionally, the following points should be considered when using the antimicrobial prophylaxis.

- Neonatal doses are not included in this policy.
- ***Choice of antibiotics***: Please see table I for acceptable choices of antibiotics based upon surgical procedure. Consider the addition of vancomycin or clindamycin for patients known to be colonized with MRSA.
- ***Dose of antibiotics:*** Please see Table II for dosing and re-dosing guidelines. We recommend weight based dosing of both cefazolin and vancomycin. Cefazolin should be administered every 4 hours; clindamycin every 8 hours; vancomycin does not require re-dosing given its long half-

life. We recommend clinicians consider re-dosing earlier than specified in Table II if there is excessive intraoperative blood loss (e.g. >1500 mL). Aminoglycosides and vancomycin should not be re-dosed in this setting.

- ***Timing of the pre-operative antibiotic dose:*** Guidelines recommend that pre-operative antibiotics be administered <60 minutes prior to incision. The guidelines have not narrowed the window for preoperative antibiotics despite acknowledging that recent data supports that antibiotics administered <30 minutes prior to incision may be more efficacious than those administered >60 minutes. Pre-operative antibiotics should reach acceptable tissue concentrations prior to the incision time to be effective. Cefazolin (2 grams) given 30 minutes prior to incision exceeds the minimum concentration needed; however, data is lacking regarding the window between 1-30 minutes.
- Thus, we recommend that the optimal window for pre-operative antibiotics is ~15 – 45 minutes prior to incision. Because vancomycin and fluoroquinolones require a prolonged infusion time to avoid intolerance, especially at higher doses, guidelines recommend that vancomycin infusion may begin 60-120 minutes prior to incision (it's long half-life makes this acceptable.

- ***Duration of post-operative antibiotics***: We recommend that all patients receive <24 hours of postoperative antibiotics. In many procedures, no doses after incision closure are necessary.
- Antibiotics must be discontinued as per provided recommendations. Patients who have documented infections at the time of surgery or within 48 hours postoperatively should receive empiric therapy.
- Routine use of vancomycin is discouraged.
- Antibiotics should cover the predominant flora of the operative site.
- Cefazolin is an appropriate first line agent for most surgical procedures.
- In patients with cephalosporin and penicillin allergies, clindamycin or vancomycin may be used. Gentamycin or ciprofloxacin can be added if Gm negative coverage is required.

Antimicrobial Surgical Prophylaxis - guidelines for Adult Patients

Table I. Preferred Empiric Agent by Surgical Type.

Surgical site	Preferred Agent	Beta Lactam Allergy
Gastroduodenal	Cefazolin	Vancomycin1 + gentamicin
Biliary Tract	Cefazolin	Metronidazole + Levofloxacin
Colorectal, appendectomy	Cefazolin + metronidazole	Metronidazole + Levofloxacin
Other general surgery (e.g. hernia repair, breast).	Cefazolin	Vancomycin1
Cesarean delivery	Cefazolin	Clindamycin1 + gentamicin
Gynecological (e.g. hysterectomy)	Cefazolin	Clindamycin1 + gentamicin
Head & Neck	Clean (incision through skin): Cefazolin Clean-contaminated: Ear/Sino nasal procedure: Cefazolin Procedures w/ oral mucosa breach: Cefazolin + Metronidazole. Contaminated: Cefazolin + metronidazole	Clindamycin
Neurosurgery	Cefazolin	Vancomycin
Orthopedics	Cefazolin	Vancomycin1
Urology* These are empiric recommendations when no pre-op urine culture data is available or cultures were negative	Cefazolin Open/laparoscopic involving intestine (clean-contaminated, e.g., radical cystectomy with ileal conduit): Cefoxitin If prosthetic material involved in urologic procedures, should add one-time dose of gentamicin	Gentamicin2[a] + Clindamycin2[n] Open/laparoscopic (clean: skin incision, does not involve GU tract): Clindamycin 2[n] Open/laparoscopic involving intestine (clean-contaminated, e.g., radical cystectomy with ileal conduit) Metronidazole + Levofloxacin If prosthetic material involved in urologic procedures, should add one-time dose of gentamicin if not already given

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Notes:

- Clindamycin can be used as an alternative to vancomycin. Clindamycin and vancomycin are recommended alternative agents to cefazolin for patients with beta-lactam allergies. http://lane.stanford.edu/biomed-resources/antibiograms-shc.html
- *Urology notes*: [a] Ciprofloxacin is a reasonable alternative. However, more E. coli isolates were susceptible to aminoglycosides than fluoroquinolones. http://lane.stanford.edu/biomed-resources/antibiograms-shc.html
- [n] If significant concern for MRSA, vancomycin should be considered as an alternative to clindamycin. In addition, clindamycin has limited urinary penetration. However, vancomycin infusion should be started 60-120 minutes prior to incision to allow for complete drug administration.
- If cultures will be obtained intra-operatively, prophylactic antibiotics should be withheld.

Antimicrobial Surgical Prophylaxis - guidelines for Adult Patients

Table II: Dosing and re-dosing of antimicrobial agents.

Antimicrobial	Recommended dose	Re dosing(hours)	Notes
Commonly used			
Cefazolin	2grams	4	
Clindamycin	900mg	6	
Vancomycin	< 80 kg = 1 grams 80 – 99 kg = 1.25 grams 100 -120 kg = 1.5 grams >120 kg = 2 grams	12	Requires prolonged infusion time, can be given 60-120 minutes prior to incision
Other			
Ampicillin-sulbactam	3grams	2	
Aztreonam	2grams	4	
Cefotetan	2grams	6	
Cefoxitin	2grams	2	
Ceftriaxone	2grams	NA	
Cefuroxime	1.5grams	4	
Ciprofloxacin	400mg	8	Requires prolonged infusion time, can be given 60-120 minutes prior to incision
Ertapenem	1gram	NA	
Gentamicin	5 mg/kg (single dose) If CrCl <20, 2mg/kg (single dose) or consult pharmacy	NA	
Levofloxacin	500mg	NA	Requires prolonged infusion time, can be given 60-120 minutes prior to incision
Metronidazole	500mg	12	
Tobramycin	5 mg/kg (single dose) If CrCl <20, 2mg/kg (single dose) or consult pharmacy	NA	

Table III: Post-op dosing

Antimicrobial	Recommended Dose (Many procedures require no post-op doses of antimicrobials. If desired, limit duration to <24 hours post closure)
Cefazolin	2 grams q8h up to 2 doses
Clindamycin	900 mg q8h up to 2 doses
Vancomycin	1 grams q12h up to 1 dose
Ampicillin-sulbactam	3 grams q6h up to 3 doses
Aztreonam	2 grams q8h up to 2 doses
Cefotetan	2 grams q12h up to 1 dose
Cefoxitin	2 grams q6h up to 3 doses
Ceftriaxone	No post-op doses needed (q24h hour dosing)
Cefuroxime	1.5 grams q8h up to 2 dose
Ciprofloxacin	400 mg q12h up to 1 dose
Gentamicin	No post-op doses needed (q24h hour dosing)
Levofloxacin	No post-op doses needed (q24h hour dosing)
Metronidazole	500 mg q8h up to 2 doses
Tobramycin	No post-op doses needed (q24h hour dosing)

2.0 References:

1. Treatment guidelines antimicrobial prophylaxis for surgery. The medical letter, June 2009.
2. The John Hopkins Antimicrobial guide. Diagnosis and treatment of infectious diseases.
3. The Sanford guide to antimicrobial therapy.
4. GCC 3rd edition of infection control manual.
5. Moh policy for post-surgical prophylaxis.

3.0 APPROVAL:

	Name	Title	Signature	Date
Prepared by	Dr. Sher Agha	Infection Control Head	DR. SHER AGHA	13 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR S.C.# 08-RN-8386	13 MAR 2019
	Dr. Sultan Majed Otaiby	Clinical Pharmacist & Head of Pharmacy dept.		14 MAR 2019
	Dr. Ahmed Hasan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No: 13-R-M-00	17 MAR 2019
	Mr. Khalid Bander Khalid Al Mutairi	Quality Director		19 MAR 2019
Approved by	Dr. Adil Moteb Bin Omairah	Hospital Director		24 MAR 2019

4.0 POLICIES AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	APP-IC-037(1)	April 1, 2016
Replaced by	APP-IC-037(2)	April 1, 2019
Deleted	APP-IC-037(1)	April 1, 2016
Replaced by New Policy and Procedure	APP-IC-037(2)	April 1, 2019

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
ANNUAL INFECTION CONTROL COMPETENCY TRAINING FOR ALL HEALTHCARE WORKERS "Right care Right now"			**APP-IC- 038 (2)**
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1 ,2019	March 31, 2022	**APP-IPC- 039 (1)**	10
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		HOSPITAL WIDE	

1.0 PURPOSE (S)

1.1 The Right Care Right now (RcRn) program aims to ensure and sustain the competencies of healthcare workers (HCWs) in infection control practices by limiting the chances of infectious disease transmission among HCWs, patients, sitters, and visitors.

2.0 DEFINITION (S)

2.1 Competency is defined as the proven ability to use knowledge and skills on personal, social, and / or methodological capabilities in work and study situations, especially in professional practices and professional development.

2.2 Accountability is defined as being responsible for one's own actions and disclosing the results in a transparent manner.

3.0 POLICY STATEMENT (S)

3.1 RcRn can be achieved by ensuring all HCWs are properly informed, trained and provided with the required knowledge and skills on infection control best practices. Further, by engaging leadership support to provide the necessary resources for implementing trainings on infection control best practices. Finally, by establishing auditing tools on performance measurements to ensure the accountability of leadership and HCWs.

4.0 EQUIPMENTS/MATERIALS/FORMS

4.1 Competency Form for Hand Hygiene
4.2 Competency Form for Donning and Doffing of PPEs
4.3 Certificate of Passing the N95 Fit Testing Program
4.4 Sample Badge for the RcRn Trainer
4.5 My Pledge

5.0 ROLES & RESPONSIBILITIES

5.1 designated trained observers of each units
5.2 designated educator during the nursing orientation phase
5.3 Infection Preventionist (IP)
5.4 Environmental health specialist
5.5 Housekeeping Supervisors

6.0 PROCEDURE

6.1 Education and Training

6.1.1 This program provides a model for hospitals to adopt and modify according to their needs in order to achieve the above-mentioned goals.

6.1.1.1 Provide education and training on infection control best practices through available teaching modalities using adult education principles.

6.1.1.2 Establishing a hospital-based certification policy to ensure that HCWs' knowledge and skills are updated, to be renewed regularly and/or as needed.

6.1.1.3 Incorporate a fit testing module, within the program or as a separate activity, to ensure that all HCWs at risk of exposure to respiratory pathogens are protected and aware of the proper respirator to be used and how to don and doff it. The program shall also include a commitment ceremony whereby HCWs make a pledge to abide by the infection control best practices and make HCWs aware of the hospitals' accountability and hierarchy.

6.1.1.4 IP&C Department (IP&C) will train and validate the competence of trained observers every two years and a certificate/badge will be provided. indicates the date of certification type of respirator used, and validity date and expiration of the badge.

6.1.1.5 If the HCW does not meet the criteria for competencies, his/her learning needs will be identified and an education plan will be

developed. The HCWs will be reassessed after completion of the education plan and will need to be within one week prior to being involved in patient care.

6.2 Five (5) Elements of the RcRn Program

6.2.1 The following 5 elements are required by the "Right care Right now" program from all newly hired HCWs before they can commence work in their respective clinical areas. A copy of these requirements will be placed in the personnel file and renewed every 1-2 years or as per hospital policy.

6.2.1.1 Complete the educational module and pass the post-test with a minimum of 80% passing rate .Training should be completed within the first month of employment in the institution for those newly-hired clinical staff. For renewal of employment, RcRn status must be valid.

6.2.1.2 Demonstrate competency on hand hygiene by undertaking a practical test under the supervision of a trained observer.

6.2.1.3 Demonstrate competency on donning and doffing of personal protective equipment (PPEs by undertaking a practical test under the supervision of a trained observer.

6.2.1.4 Pass the N95 mask fit test or if the HCW fails the N95 fit testing, undergo Powered Air Purifying Respirator (PAPR) testing refer to N95 and/or PAPR fit tests should be mandated by the designated department and made as a hospital policy that would be valid for 1-2 years or as per hospital policy.

6.2.1.5 Understand and sign the pledge of accountability.

6.3 Training of Trained Observers

6.3.1 Nursing staff will be trained by a designated educator during the nursing orientation phase.

6.3.2 Other allied healthcare workers will be trained by the designated trained observers of their units

6.3.3 Physicians and residents to be trained by the Infection Preventionist (IP) assigned in their areas.

6.3.4 Housekeeping Supervisors to be trained by the Environmental health specialist

6.3.5 Housekeepers to be trained by their Housekeeping Supervisor

6.4 Resources

6.4.1 Post-test from IP&C Department (i.e., online exam, if available)
6.4.2 Competency Form for Hand Hygiene
6.4.3 Competency Form for Donning and Doffing of PPEs
6.4.4 Certificate of Passing the N95 Fit Testing Program
6.4.5 Pledge for Accountability
6.4.6 Sample Badge for the RcRn Trainer

7.0 **RELATED POLICY/ CROSS REFERENCES**:

7.1 ANNUAL INFECTION CONTROL COMPETENCY TRAINING FOR ALL HEALTHCARE WORKERS "Right care Right now", ICM - II – 07, (GCC-CIC) 3rd edition 1/1/2018

ATTACHMENT 1: **Competency Checklist for Hand Hygiene**

KINGDOM OF SAUDI ARABIA
MINISTRY OF HEALTH
GENERAL DIRECTORATE OF HEALTH AFFAIRS RIYADH
AFIF GENERAL HOSPITAL
INFECTION CONTROL DEPARTMENT

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Competency checklist for hand hygiene			
Steps	**Performance Checklist**	**Competent**	**Non-competent**
1	Apply a palm full of the alcohol gel in a cupped hand.		
2	Rub hands palm to palm.		
3	Right palm over left dorsum with interlaced fingers and vice versa.		
4	Palm to palm with fingers interlaced.		
5	Backs of fingers to opposing palms with fingers interlocked.		
6	Rotational rubbing of left thumb clasped in right palm and vice versa.		
7	Rotational rubbing, backwards and forwards with clasped fingers of right hand in the left palm and vice versa.		
8	Dry your hands.		

Date: _____

Name of Staff: _____Computer Number: _____Signature: _____

Trained Observer: _____ Computer Number: _____Signature: _____

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ATTACHMENT 2: **Certificate for Donning & Doffing PPE**

KINGDOM OF SAUDI ARABIA
MINISTRY OF HEALTH
GENERAL DIRECTORATE OF HEALTH AFFAIRS RIYADH
AFIF GENERAL HOSPITAL
INFECTION CONTROL DEPARTMENT

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DONNING AND DOFFING PPE

Donning PPE			
Required PPE for Healthcare workers: • Isolation Gown • Surgical Mask or (Fil-tested , sealed checked N-95 mask (if on airborne precaution) • Gloves • Full face shield or goggles Observers will monitor and document successful donning and doffing of PPE			
Steps	Performance Checklist	Competent	Non- Competent
1.	Engaged Observer: The donning process is conducted under the guidance and supervision of a trained observer who confirms visually that all PPE is serviceable and has been donned successfully. The observer will use a written checklist to confirm each step in donning PPE.		
2.	**Perform Hand Hygiene :** When using ABHR , allow hands to dry before moving to next step.		
3.	**Put on isolation gown:** Fully cover the torso from neck to knees., secure at neck and waist.		
4.	**Put on a surgical mask :** place over nose , mouth and chin the fit flexible nose over nose bridge, secure on the head with ties.		
5.	**Put on eye protection (Goggles or face shield)**		
6.	**Put on gloves: extend gloves over the isolation gown**		

Donning PPE			
PPE should be removed and discarded before leaving the patient's room or care area, except for N95 mask which should be removed immediately outside the room if in Airborne Precaution			
Steps	Performance Checklist	Competent	Non- Competent
1.	Remove gloves		
2.	Perform Hand Hygiene		
3.	Remove goggles or face shield by lifting the head band or earpieces		
4.	Remove Gown: unfasten ties, peel gown away from the neck and shoulder, turn it inside out, fold into a bundle and discard		
5.	**Perform hand hygiene**		
6.	**Remove the surgical mask:** by grasping the bottom ties or elastics of the mask, then the ones at the top without touching the front.		
7.	**Perform hand hygiene**		

Date: _____

Name of Staff: _____ Computer Number: _____ Signature: _____

Trained Observer: _____ Computer Number: _____ Signature: _____

ATTACHMENT 3: **N-95 Mask Fit Testing Result**

KINGDOM OF SAUDI ARABIA
MINISTRY OF HEALTH
GENERAL DIRECTORATE OF HEALTH AFFAIRS RIYADH
AFIF GENERAL HOSPITAL
INFECTION CONTROL DEPARTMENT

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N-95 MASK FIT TESTING RESULT

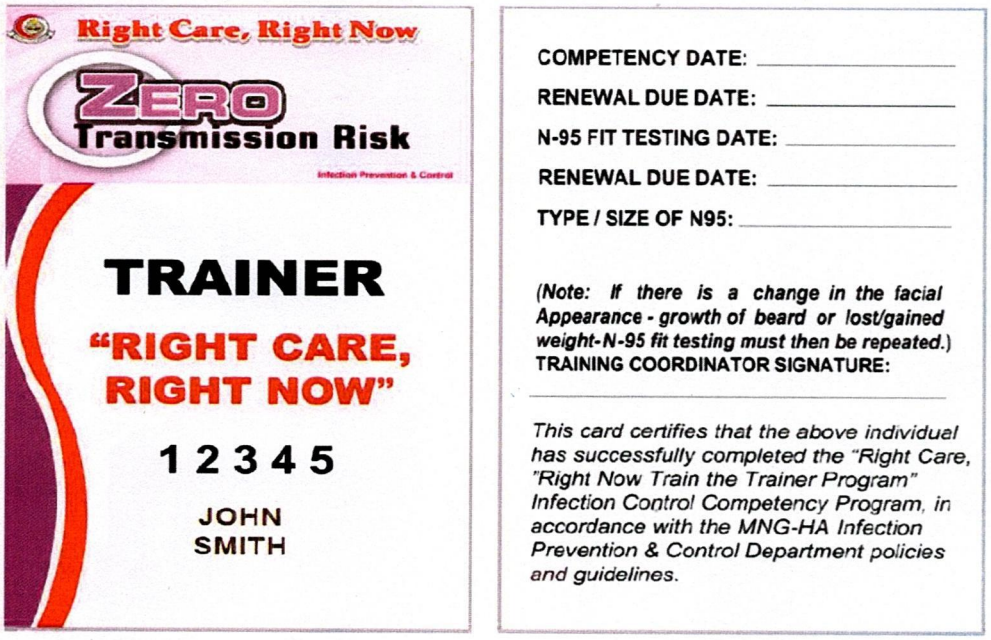
Full name:		
Badge Number:		
Professional category:		
Ward/Department:		
Type of N-95 Mask		
N-95 Kinberly Clarck	*PASSED*	*FAILED*
Regular		
Small		
Fit tester Signature:		
N95 3-M		
1805		
1805S		
1870 PLUS		
Fit tester signature		
Note: This N-95 Mask Fit testing result is not valid unless it has the stamp of the fit testing department		

ATTACHMENT 4: **Sample Badge for RcRn Trainers**

KINGDOM OF SAUDI ARABIA
MINISTRY OF HEALTH
GENERAL DIRECTORATE OF HEALTH AFFAIRS RIYADH
AFIF GENERAL HOSPITAL
INFECTION CONTROL DEPARTMENT

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SAMPLE BADGE FOR RcRn TRAINERS



ATTACHMENT 4: **My Pledge**

KINGDOM OF SAUDI ARABIA
MINISTRY OF HEALTH
GENERAL DIRECTORATE OF HEALTH AFFAIRS RIYADH
AFIF GENERAL HOSPITAL
INFECTION CONTROL DEPARTMENT

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MY PLEDGE

I will work with all my colleagues in this institution to save lives and improve our patient outcomes by eliminating transmission of MERS-CoV and other organisms (respiratory pathogens, resistant organisms) and hospital-associated infections through:

1. **Educating** our healthcare community and our patients in their role to prevent infections and transmissions;
2. Promoting and following **best infection prevention practices** that keep my patients and my colleagues safe;
3. Being **responsible** – and always reminding my colleagues when they forget to follow these best practices;
4. Being **personally accountable** for my behavior and supporting those people who help me practice the best patient care.

Signed by:

_____	_____	_____
Signature above Printed Name	**Badge No.**	**Date**

8.0 APPROVAL

	Name	Title	Signature	Date
Prepared by	Ms.Mirriam Licuanan	IC Staff	MIRRIAM F. LICUANAN RN 0281568	07 MAR 2019
	Dr. Sher Agha	Head of Infection Control	DR. SHER AGHA	10 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR	12 MAR 2019
	Dr. Sher Agha	Head of Infection Control	DR. SHER AGHA	10 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR	14 MAR 2019
	Mr. Khaled Bander Al Mutairy	TQM Director	Director	17 MAR 2019
Approved by	Dr. Adel Metaeb Bin Omairh	Hospital Director		20 MAR 2019

9.0 POLICY AND PROCEDURE HISTORY

Policy and Procedure History:	**Index &Version number**	**Date**
Initial Policy and Procedure	APP-IC-039 (1)	May 1, 2018
Replaced by	APP-IC-038 (2)	April 1,2019
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Replaced by New Policy and Procedure	APP-IC-038 (2)	April 1, 2019

KINGDOM OF SAUDI ARABIA

MINISTRY OF HEALTH

GENERAL DIRECTORATE OF HEALTH AFFAIRS RIYADH

AFIF GENERAL HOSPITAL

POLICIES AND PROCEDURES

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
MOH CORE COMPONENTS OF IPC PROGRAMS			APP-IC-039-(2)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 31, 2022	APP-IC-39-(1)	3
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR(CHAIRPERSON)		ALL HOSPITAL	

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DEFINITION

To ensure all healthcare facilities are equipped with infection prevention and control strategies targeting healthcare-associated infections (HAIs) and combating antimicrobial resistance (AMR).

COMMENTS

The World Health Organization (WHO) Guidelines on Core Components of Infection Prevention and Control (IP&C) Programs is an extensive document that may be utilized at the local and national levels. However, other countries may use other models for infection prevention and control, such as, their respective Ministry of Health infection control core components.

POLICY

The objective of these guidelines is to support IP&C improvements at both local and national levels by utilizing the WHO guidelines, as applicable, in both the public and private

sectors. Included in these guidelines are tools for self-assessment and continuing improvement.

1. The core components include:

1.1 IPC Program Management

1. Authority Statement
2. Key Requirements
3. Job Descriptions.

1.2 Infection Control Committee

1. Authority Statement
2. Agenda
3. Attendance Grid
4. Meeting Minutes
5. Topic Tracker/Scheduler
6. Risk Assessment
7. Annual IC Plan

1.3 Clinical Activities

1. Infection Control Monitoring
2. Implementation of Isolation Precautions
3. Daily Tracking of Infections
4. Construction Permit
5. Outbreak Investigation
6. Training
7. Surveillance

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2. Assessment for compliance with the WHO self-assessment tool needs to be conducted by all healthcare facilities on a regular basis and implement action plans for any deficiencies that are identified for improvement.

REFERENCE

1. World Health Organization (2016). Guidelines on Core Components of Infection Prevention and Control programs at the National and Acute Health Care Facility Level. Geneva, Switzerland.
2. Core Components of Infection Prevention and Control, 2016 – Technical. http://www.gdipc.org/professionals.html.

APPROVAL:

	Name	Title	Signature	Date
Prepared by	Ms. Mirriam Licuanan	Infection Control Staff	MIRRIAM F. LICUANAN RN. 0281568	07 MAR 2019
Reviewed by	Ms. Lydia Liñan	Nursing Director	LYDIA R. LIÑAN NURSING DIRECTOR S.C.# DC-RN 78386	12 MAR 2019
	Dr. Sher Agha	Head of infection Control	DR. SHER AGHA	10 MAR 2019
	Dr. Ahmed Hassan	Medical Director	AHMED HASSAN MEDICAL DIRECTOR SC No: 13-R-M-0046094	MAR 2019
	Mr.Khalid Bader Mutairy	TQM Director		18 MAR 2019
Approved by	Dr. Adel Moteb Bin Omairah	Hospital Director		21 MAR 2019

FOR REVIEW BY M.D.&H.D. BEFORE USE

INGDOM OF SAUDI ARABIA

MINISTRY OF HEALTH

GENERAL DIRECTORATE OF HEALTH AFFAIRS RIYADH

AFIF GENERAL HOSPITAL

POLICIES AND PROCEDURES

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
SINGLE USE DEVICE (SUD)			APP-IC-040 (2)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
April 1, 2019	March 31, 2022	APP-IC-040 (1)	6
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR(CHAIRPERSON)		ALL HOSPITAL	

1. POLICY STATEMENT:

It is the Policy of Afif General Hospital that medical devices identified by the manufacturer as single use will never be reprocessed within a clinic or CSSD setting and used for another patient.

This policy outlines the hospital responsibilities in relation to Single Use Medical Devices

1.1 draw to the attention of staff, hazards and risks associated with reprocessing and reusing single-use medical devices

1.2 use medical devices safely and appropriately

1.3 not reuse single use items
Afif General Hospital staff must not reuse a single use medical device under any circumstances

2. DEFINITIONS

2.1 **Single-use** – The expression 'single-use' means that the medical device is intended to be used on an individual patient during a single procedure and then discarded. It is not intended to be reprocessed and used on another patient

2.2 **Cleaning** – A process that physically removes contamination but does not necessarily destroy micro-organisms

2.3 **Decontamination** – A process which removes or destroys contamination and thereby prevents micro-organisms or other contaminants reaching a susceptible site in sufficient quantities to initiate infection or any other harmful response. Three processes of decontamination are commonly used: cleaning, disinfection and sterilization

2.4 **Disinfection** – A process used to reduce the number of viable microorganisms but which may not necessarily inactivate some bacterial agents, such as certain viruses and bacterial spores

2.5 **Endotoxin** – Is a toxin lipopolysaccharide, formed by the breakdown of the cell wall of Gram-negative bacteria. Bacterial endotoxins can be active even if the bacteria from which they are released are killed

2.6 **Intended purpose** – The use for which the device is intended according to the information supplied by the manufacturer on the labelling, in the instructions and/or promotional materials

2.7 **Legal entity** – An individual, institution or organization that has its own existence for legal or tax purposes e.g. a corporation, partnership or trust

2.8 **Manufacturer** – The person with responsibility for the design, manufacture, packaging and labelling of a device before placing it on the market under its own name, this can be a company or an individual

2.9 **Medical device** – Any instrument, apparatus, appliance, material or other article, whether used alone or in combination, intended by the manufacturer to be used for human beings.

2.10 **Prions** – Infectious agents, smaller than viruses. Unlike other pathogens, prions contain no DNA or RNA. Their only known component is a protein with an abnormal conformation

2.11 **Professional user** – The trained and qualified person who operates a device for the benefit of the patient.

2.12 **Reprocess** – To make good the device for reuse by any or a combination of the following processes:

2.12.1 Cleaning
2.12.2 Disinfection/decontamination
2.12.3 Sterilization
2.12.4 Refurbishment
2.12.5 Repackaging

Note: the manufacturer of reusable devices should provide validated reprocessing instructions along with the device.

2.13 **Preprocessor** – A person who undertakes the reprocessing of a medical device

2.14 **Re-sterilization** – The repeated application of a terminal process designed to remove or destroy all viable forms of micro-organisms, to an acceptable level of sterility

2.15 **Reuse –** Another episode of use, or repeated episodes of use, of a medical device, which has undergone some form of reprocessing between each episode

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3. PROCEDURE FOR SINGLE USE MEDICAL DEVICES

Definition of Single Use

The medical device is intended to be used on an individual patient during a single procedure and then discarded. The device is not intended to be reprocessed and used on another patient. The labelling identifies the device as disposable and not intended to be reprocessed and used again. Shown below is the symbol that identifies single use items. This will appear on packaging but might not be present on individual items for e.g. podiatry packs. If in doubt, further advice should be sought from the manufacturer



single use

4. Safety Issues

4.1 Single use devices may not be designed to allow a thorough decontamination process.

4.2 Reprocessing a single-use device may alter its characteristics so that it no longer complies with the original manufacturer's specifications and performance may be compromised.

4.3 Single use devices have not undergone extensive testing, validation and documentation to ensure the devices are safe to reuse.

4.4 Infection is one of the greatest patient safety concerns associated with reuse.

4.5 The risk of cross infection may increase due to the inability of the reprocessing system to completely remove viable micro-organisms. This may be due to design e.g. narrow lumens. Viable micro-organisms may be incompletely removed and be transferred to the next patient.

4.6 Some materials can absorb certain chemicals which can gradually leach from the material over time. For e.g. disinfectants may be absorbed by plastics and leach out during use, resulting in chemical burns or a risk of sensitization of the patient or user.

4.7 Chemicals may cause corrosion or changes to the materials of the device. For e.g., plastics may soften, crack or become brittle.

4.8 The material may experience stress during reuse and may fail, stretch or break.

4.9 Inadequately cleaned equipment can carry bacterial endotoxins which remain after bacteria are killed.

4.10 The re-use of a single use device has implications under the Medical Devices Regulations. Anyone who reprocesses or re-uses a device CE–marked for use on a single occasion bears the responsibilities normally carried by the manufacturer for the safety and effectiveness of the instrument. This may then transfer legal liability for that item from the manufacturer to staff or the Trust, unless reprocessing methods have been validated to prove the safety of both the process, and the end product.

5. Single Patient Use

Some items of equipment are identified as suitable for single patient use i.e. urethral catheters supplied within the community for intermittent use and continence treatment equipment. A medical device may be used for more than one episode on one patient only; the device may undergo some form of reprocessing between each use. Advice must be sought from the manufacturer or the Infection Prevention and Control Service on appropriate decontamination methods.

6. Use of Medicines

Use of Medicines including topical medical products must be considered as single use items unless the label and/or the supporting manufacturers guidelines clearly state that they have been prepared as multi-dose items. A risk assessment must be carried out (in conjunction with Medicines Management) for each individual product.

7. Disposal of Single Use Equipment

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Single use equipment must be disposed of following the medical Waste Policy.

8. **Patients Own Equipment, dressings and dressing packs**

Patients who present to staff either in clinic or patients own home with their own equipment, dressings or dressing packs which have been opened must be advised that these cannot be used due to the possible risk of infection and possible compromise to patient safety. The equipment, dressings or dressing packs are to be returned to the patient as they are the patient's property or can be disposed of by the staff member with the patient's consent.

9. **TRAINING/SUPPORT**

Infection Prevention and Control training (including Single Use Medical Devices) is a mandatory requirement for both clinical and non-clinical staff.

10. **PROCESS FOR MONITORING EFFECTIVE IMPLEMENTATION**

A number of planned unannounced visits take place and nominated areas or staff groups are visited by the Director of Quality & medical/Director of Infection Prevention & Control and an Infection Prevention & Control Nurse. The Infection Prevention & Control Group monitors compliance.

11. **REFERENCES**

11.1 Association for the Advancement of Medical Instrumentation. (2006). Comprehensive guide to steam sterilization and sterility assurance in healthcare facilities.

11.2 Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 30: Aseptic technique. In APIC Text of infection control and epidemiology (4th ed).

11.3 Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 07: Product evaluation. In APIC Text of infection control and epidemiology (4th ed).

11.4 Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2014). Chapter 32: Reprocessing single-use devices. In APIC Text of infection control and Epidemiology (4th ed.).

11.5 Drug and Health Products. Reprocessing of reusable and single-use medical devices. Health Canada, British Colombia. Available at: www.bc-sc.gc.ca Accessed: March 2009.

11.6 John Hopkins Hospital. (2006). Reprocessing of single-use patient care items by third part vendors. Interdisciplinary Clinical Practice Manual. Policy No. IFC-004

11.7 Saudi Food and Drug Authority, Kingdom of Saudi Arabia. Available at: www.sfda.gov.sa.
Accessed: March 2009

12. APPROVAL

	Name	Title	Signature	Date
Prepared by	Ms.Mirriam Licuanan	I.C. Staff	MIRRIAM F. LICUANAN RN 0281566	07 MAR 2019
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	Dr. Sher Agha	Head of Infection Control	DR. SHER AGHA	10 MAR 2019
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC Reg 13-R-M-0046094	11 MAR 2019
	Mr. Khaled Bander Al Mutairy	TQM Director	Mr. Khaled [illegible] QM Director	17 MAR 2019
Approved by	Dr. Adel Moteb Bin Omairah	Hospital Director		20 MAR 2019

13. POLICY AND PROCEDURE HISTORY

Policy and Procedure History:	**Index &Version number**	**Date**
Initial Policy and Procedure	**APP-IC-040 (1)**	May 15, 2018
Replaced by	**APP-IC-040 (2)**	April 1, 2019
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المملكة العربية السعودية
وزارة الصحة
المديرية العامة للشئون الصحية بمنطقة الرياض
١٠٠/٢٧٥

وزارة الصحة
Ministry of Health

الرقم: .....
التاريخ: / / ١٤هـ
المشفوعات: .....

تعميم داخلي

هذه هي سياسة مستشفى عفيف العام ، أنه لايعاد استخدام الأدوات ذات الاستخدام الواحد ،وأن الأدوات- ذات الاستخدام الواحد- المستهلكة يتم التخلص منها وفق معايير وإجراءات النفايات الطبية.

Internal Memo

It is the policy of the Afif General Hospital Ministry of Health Riyadh region, that not to reuse the single use devices and that the single used devices to be discarded at the point of care according to the medical waste protocols.

Hospital Director

Dr.Adel Metaeb Bin Omairah

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
TRANSPORTING PATIENTS ON ISOLATION PRECAUTIONS			APP-IC-041 (1)
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
May 1, 2018	April 30, 2021	NEW	4
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		HOSPITAL WIDE	

1.0 PURPOSE

1.1. To provide clear guidelines to safely transporting isolated patients within the facility while preventing or minimizing infection transmission.

2.0 DEFINITION (S)

2.2 N/A

3.0 POLICY STATEMENT

3.1 Transport of isolated patients should be limited to essential purposes only, such as diagnostic and therapeutic procedures that cannot be performed in the patient's room.

3.2 When patient transport is necessary, appropriate barriers (e.g., masks, leak-proof dressing) should be worn to reduce potential contamination of the environment and the spread of infection.

3.3 Refer to APP-IC-007 (3) Isolation (Expanded) Precautions for specific isolation precautions.

3.4 All staff must observe Standard Precautions at all times with a multi-drug-resistant organism(MDRO) case.

3.5 Transporting patients colonized or infected within facility or between facilities within a country or between countries allow risks for spreading MDROs.

3.6 MDROs, including Vancomycin Resistant Enterococcus (VRE) and Clostridium difficile, are pathogens resistant to more than one antimicrobial agent from at least three different classes.

4.0 EQUIPMENT/ MATERIALS/FORMS

4.1 Hand Hygiene Facilities
4.2 Personal Protective Equipment
4.3 Expanded Precaution boards : Contact . Droplet, Airborne
4.4 Medical Waste Receptacles

5.0 ROLES & RESPONSIBILITIES

5.1 Infection Prevention & Control Department
5.2 Healthcare Personnel

6.0 PROCEDURE

6.1 Ward

6.1.1 Notify the receiving department to which the patient is being transported of the isolation precautions in effect.
6.1.2 Instruct the patient on the ways that he/she can assist in maintaining appropriate precautions to prevent transmission of the infection.
6.1.3 Healthcare workers transporting patients who are in isolation are not required to wear PPEs unless there is a risk of exposure to blood and body fluids.
6.1.4 Isolation instructions must highlight the transmission-based precaution card (isolation signs) needed while transporting patients under transmission-based precautions to other department (e.g radiology).
6.1.5 Dress wounds with impervious dressings as required.
6.1.6 Dress the patient in a clean gown.
6.1.7 For patients with skin lesions associated with varicella or smallpox or with draining lesions caused by Mycobacterium Tuberculosis (MTB), cover the affected areas to prevent aerosolization and to avoid contact with the infectious agent.
6.1.8 Explain to the patient the need for the protective apparel that he/she is required to wear.
6.1.8.1 Put a mask on any patient who is in airborne isolation.
6.1.9 Cover the wheelchair/stretcher with a sheet before moving the patient.
6.1.10 Cover the patient with a clean sheet.
6.1.11 Transport the patient to the area as required.
6.1.12 Return the patient to the isolation room as soon as circumstances allow.

6.1.13 Clean and disinfect the wheelchair or stretcher with the hospital-approved disinfectant.

6.2 Receiving Department

6.2.1 Use appropriate personal protective equipment (PPE) when managing the patient.

6.2.2 Observe the specified isolation techniques. Adhere to the Hand Hygiene policy.

6.2.3 Arrange for the patient's return to his/her ward as soon as possible.

6.2.4 Change linens and clean equipment and environmental surfaces as indicated before receiving the next patient.

6.3 Transferring the Patient to Another Facility

6.3.1 Inform the receiving facility and the emergency vehicle personnel in advance about the type of isolation and standard precautions (PPE) required.

6.3.2 Provide complete information on the infectious status of the patient to the receiving facility.

6.3.3 Inform receiving hospital and document the presence of a MDRO and specify whether it is a colonization or an infection.

7.0 RELATED POLICY/ CROSS REFERENCES:

7.1 Expanded Precautions Policy, APP-IC-007 (3), AGH, 2016-2018

7.2 TRANSPORTING PATIENTS ON ISOLATION PRECAUTIONS, ICM - III – 09 (GCC-CIC) 3rd edition , 1/1/2018

8.0 APPROVAL

	Name	Title	Signature	Date
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	Dr. Sher Agha	Head of Infection Control	DR. SHER AGHA	10 MAR 2019
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	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR SC No: 13-R-M-0046094	14 MAR 2019
	Mr. Khaled Bander Al Mutairy	TQM Director	QM Director	17 MAR 2019
Approved by	Dr. Adel Moteb Bin Omairh	Hospital Director		20 MAR 2019

9.0 POLICY AND PROCEDURE HISTORY

Policy and Procedure History:	**Index &Version number**	**Date**
Initial Policy and Procedure	**APP-IC-041 (1)**	May 1, 2018
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Replaced by New Policy and Procedure	NEW	May 1, 2018

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General Directorate for Infection prevention and Control

TRANSPORTATION CARD

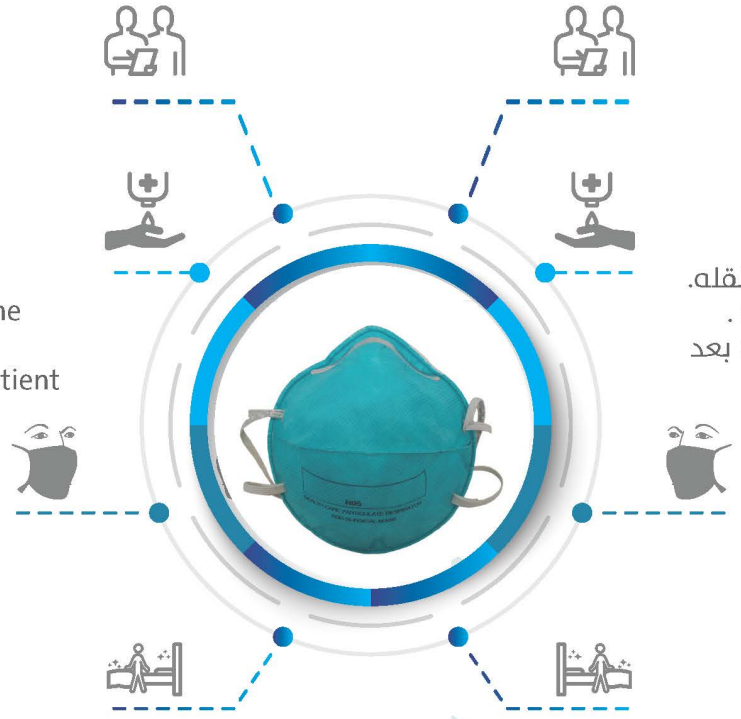
AIRBORNE PRECAUTIONS العزل الهوائي

1 Notify the receiving unit/ward/department (Diagnosis, Type of Isolation Precautions).

2 **Prepare the patient for transportation :**
- Patient should wear surgical mask.
- Educate the patient about respiratory hygiene (Cough Etiquette).
- HCW should perform hand hygiene after patient transport.

3 If the patient can not tolerate wearing a **surgical mask**, during transportation healthcare workers should wear the fitted **N95 respirator**.

4 Staff should disinfect the patient bed/ wheeled chair using MOH approved disinfectant.



Use N95 respirator

1 ابلاغ القسم المستلم (التشخيص - نوع العزل) .

2 **يجب أن يتم تحضير المريض للنقل كما يلي:**
- أن يستخدم المريض الكمام الجراحي العادي أثناء نقله.
- تثقيف المريض عن العناية التنفسية (آداب السعال) .
- يجب على الممارس الصحي ممارسة نظافة الايدي بعد الإنتهاء من نقل المريض .

3 فى حاله عدم امكانية إرتداء المريض للكمام الجراحي الطبي العادي يجب على الممارس الصحي استخدام الكمام التنفسي عالي الكفاءة (N95) أثناء عملية النقل .

4 يجب على الممارس الصحي تطهير السرير أو الكرسي المتحرك المستخدم لنقل المريض بعد النقل باستخدام المطهرات المعتمدة في وزارة الصحة.



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General Directorate for Infection Control of Health Facilities

إحتياطات العزل التلامسي
CONTACT PRECAUTIONS

يجب على الزوار مراجعة مكتب التمريض قبل الزيارة
VISITORS : Report to nurse's station before entring the room

على جميع الممارسين الصحيين و الزوار اتباع التالي:

All HCWs and visitors must do the following:

قبل دخول الغرفة او منطقة المريض:

1- ممارسة نظافة الايدي.

2- ارتداء مريول العزل و القفازات .

before patient room or care area entry :

1- Practice hand hygiene .

2- Wear isolation gown and gloves.



قبل الخروج من غرفة المريض أو منطقة المريض:

1- يتم خلع مريول العزل والقفازات والتخلص منها في حاوية النفايات الطبية .

2- ممارسة نظافة الايدي.

before exit from patient room or care area :

1- Remove gown and gloves and discard as medical waste.

2- Practice hand hygiene .

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TRANSPORTATION CARD

CONTACT PRECAUTIONS العزل التلامسي

1 Notify the receiving unit/ward/department (Diagnosis, Type of Isolation Precautions).

2 **Prepare the patient for transportation :**

- Dress wounds with impervious dressings.
- Dress the patient in a clean gown.
- Cover patient with clean sheet.
- HCW should wear clean gloves and perform hand hygiene after taking off .

3 Staff should disinfect the patient's bed / wheeled chair using MOH approved disinfectant.



Use clean gloves

1 إبلاغ القسم المستلم (التشخيص - نوع العزل).

2 **يتم تحضير المريض للنقل كما يلي:**

- تغطية جروح المريض بضماد غير منفذ للسوائل.
- إرتداء المريض لرداء طبي نظيف.
- تغطية المريض بملاءة نظيفة.
- يجب على الممارس الصحي إرتداء القفازات النظيفة ونزعها بعد الإنتهاء من نقل المريض وممارسة تطهير الأيدي.

3 يجب على الممارس الصحي تطهير السرير/ الكرسي المتحرك المستخدم لنقل المريض بعد النقل باستخدام المطهرات المعتمدة بوزارة الصحة.



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إحتياطات العزل التلامسي
CONTACT PRECAUTIONS

يجب على الزوار مراجعة مكتب التمريض قبل الزيارة
VISITORS : Report to nurse's station before entring the room

على جميع الممارسين الصحيين و الزوار اتباع التالي:

All HCWs and visitors must do the following:

قبل دخول الغرفة او منطقة المريض:

1- ممارسة نظافة الايدي.

2- ارتداء مريول العزل و القفازات .

before patient room or care area entry :

1- Practice hand hygiene .

2- Wear isolation gown and gloves.



قبل الخروج من غرفة المريض أو منطقة المريض:

1- يتم خلع مريول العزل والقفازات والتخلص منها في حاوية النفايات الطبية .

2- ممارسة نظافة الايدي.

before exit from patient room or care area :

1- Remove gown and gloves and discard as medical waste.

2- Practice hand hygiene .



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General Directorate for Infection Control of Health Facilities

احتياطات العزل الرذاذي
DROPLET PRECAUTIONS

يجب على الزوار مراجعة مكتب التمريض قبل الزيارة
VISITORS : Report to nurse's station before entring the room

All HCWs and visitors must do the following:

على جميع الممارسين الصحيين و الزوار اتباع التالي:

before patient room or care area entry :

1- Practice hand hygiene .

2- Wear a surgical Mask .

قبل دخول الغرفة أو منطقة المريض:

1- ممارسة نظافة الأيدي.

2- ارتداء الكمام الجراحي العادي .



before exit from patient room or care area :

1- Surgical Mask must be removed and discarded as medical waste.

2- Practice hand hygiene .

قبل الخروج من غرفة المريض أو منطقة المريض:

1- يتم خلع الكمام الجراحي العادي والتخلص منه في حاوية النفايات الطبية .

2- ممارسة نظافة الأيدي.

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TRANSPORTATION CARD

DROPLET PRECAUTIONS العزل الرذاذي

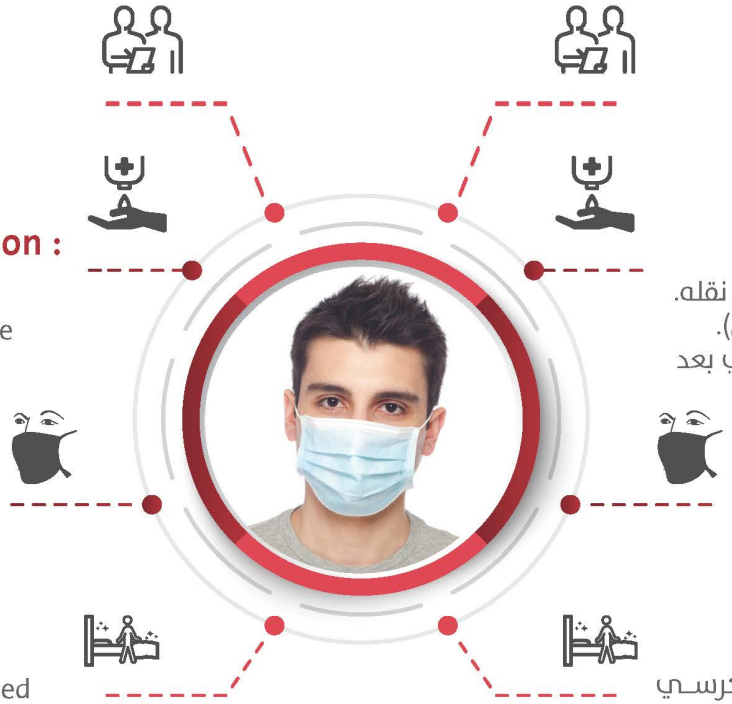
1 Notify the receiving unit/ward/department (Diagnosis, Type of Isolation Precautions).

2 **Prepare the patient for transportation :**

- Patient should wear a surgical mask.
- Educate the patient about respiratory hygiene (Cough Etiquette).
- HCW should perform hand hygiene after patient transport.

3 If the patient can not tolerate wearing a **surgical mask**, HCW should wear a surgical mask during transportation.

4 Staff should disinfect the patient bed/ wheeled chair using MOH approved disinfectant.



Use surgical or medical masks

1 ابلاغ القسم المستلم (التشخيص - نوع العزل).

2 **يجب أن يتم تحضير المريض للنقل كما يلي:**

- أن يستخدم المريض الكمام الجراحي العادي أثناء نقله.
- تثقيف المريض عن العناية التنفسية (آداب السعال).
- يجب على الممارس الصحي ممارسة نظافة الايدي بعد الإنتهاء من نقل المريض.

3 يجب على الممارس الصحي استخدام الكمام الجراحي العادي أثناء عملية النقل فى حاله عدم امكانية إرتداء المريض للكمام الجراحي الطبي العادي.

4 يجب على الممارس الصحي تطهير السرير أو الكرسي المتحرك المستخدم لنقل المريض بعد النقل باستخدام المطهرات المعتمدة في وزارة الصحة.

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
POLICY FOR NOVEL CORONA VIRUS INFECTION 2019-(COVID-19)			APP-IC-COVID-19
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
January,2020	December 31,2022	NEW	20
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		ALL HOSPITAL	

1). PURPOSE:

The purpose of this policy is to effective catch all the suspected cases of novel corona virus 2019 at the point of entry to the emergency department by screening for the signs and symptoms with the help of checklist at the visual triage, isolate them form the non-respiratory cases and examine them in a separate room, respiratory triage room with hepa filter in place/isolation room.

2). DEFINITION:

Suspected COVID-19:

1. A Person with acute respiratory illness (**sudden onset of at least one of the following: fever or recent h/o fever or cough or shortness of breath) AND in the 14 days prior to the symptom's onset met at least one of the following epidemiological ink.**

Had a history of travel abroad
or
Travel to an identified high-risk area in the kingdom1
or
A close physical contact prior to symptom onset with a confirmed COVID-19 case*
or
Working in or attended a healthcare facility where patients with confirmed COVID-19 are admitted.

OR

2-Adult patient with severe acute respiratory illness (ICU admission, ARDS[2] or CURB-65 score[3] ≥ 3 points) AND all the following conditions fulfilled

- Testing for influenza and MERS-CoV are negative.
- Clinical assessment indicating that the patient is not improving and has no clear underlying causes

Close contact is defined as

- Health care associated exposure, including providing direct care for 2019-nCoV patients, working with health care workers infected with 2019-nCoV, visiting patients or staying in the same close environment of a 2019-nCoV patient.
- Working together in close proximity or sharing the same classroom environment with a with 2019-nCoV patient
- Traveling together with 2019-nCoV patient in any kind of conveyance
- Living in the same household as a 2019-nCoV patient.

Confirmed 2019-nCoV is defined as:

A Confirmed case is defined as a suspected case with laboratory confirmation of 2019-nCoV infection.

3). EPIDEMIOLOGY:

Novel (new) Coronavirus (2019-2019-nCoV) is a new strain of coronavirus that was first identified in a cluster of pneumonia cases in Wuhan City, Hubei Province of China. Most of the cases have had exposure to a large seafood and animal market.

The virus is spread to most of the neighboring countries like Korea, japan, Thailand, Singapore, as well as Australia and America.

MODE OF TRANSMISSION:

The mode(s) of transmission of the 2019-nCoV are currently unknown. Available information suggests that the 2019-nCoV is zoonotic and causes infections in humans through contact with infected animals. Current data does not suggest sustained human-to-human transmission. Mostly the transmission is contact and droplet.

CLINICAL FEATUREs:

Most of the cases have shown respiratory symptoms, fever, cough, sore throat, shortness of breath and pneumonia.

4. INFECTION PREVENTION AND CONTROL (IPC):

The principles of infection prevention and control strategies associated with health care with suspected COVID-19 are:

- Early recognition and source control.
- Application of Standard Precautions for all patients.
- Implementation of empiric additional precautions (droplet and contact and whenever applicable airborne precautions) for suspected cases.
- Administrative controls.
- Environmental and engineering controls.
  - https://www.moh.gov.sa/CCC/healthp/regulations/Documents/MERS-CoV%20Guidelines%20for%20Healthcare%20Professionals%20-%20May%202018%20-%20v5.1%20(1).pdf.

4.1 Early recognition and source control.

Encourage HCWs to have a high level of clinical suspicion.

• Activation of respiratory triage.

• Post signage reminding symptomatic patients to alert HCWs.

• Promotion of respiratory hygiene is an important preventative measure.

• Suspected COVID-19 patients should be placed in an area separate from other patients, and additional Infection Prevention and Control IPC (droplet and contact) precautions promptly implemented.

4.2 Application of Standard Precautions for all patients:

- Correct and consistent use of available PPE and appropriate hand hygiene.
- Perform hand hygiene after contact with respiratory secretions
- PPE effectiveness depends on adequate and regular supplies.
- Adequate staff training and specifically appropriate human behavior.
- Ensure that environmental cleaning and disinfection procedures are followed consistently and correctly. Thorough cleaning of environmental surfaces with water and detergent and applying commonly used hospital level disinfectants (such as sodium hypochlorite) is an effective and sufficient procedure.
- Manage laundry, food service utensils and medical waste in accordance with safe routine procedures. prevention of needle-stick or sharps injury.

- Ensure the following respiratory hygiene measures:

• Offer a medical mask for suspected COVID-19 infection for those who can tolerate it.

• Cover nose and mouth during coughing or sneezing with tissue or flexed elbow for others.

4.3 Implementation of empiric additional precautions.

4.3.1 Contact and Droplet precautions for suspected COVID-19:

In addition to Standard Precautions, all individuals, including family members, visitors and HCWs should apply Contact and Droplet precautions.

- Place patients in adequately ventilated single rooms.
- When single rooms are not available, cohort patients suspected of COVID-19 infection together (Place patient beds at least 1m apart, when possible, cohort HCWs to exclusively care for cases to reduce the risk of spreading transmission due to inadvertent infection control breaches).
- Use a medical mask with an eye/facial protection (i.e. goggles or a face shield).
- Use gloves and a clean, non-sterile, long-sleeved fluid resistant gown.
- Use either single use disposable equipment or dedicated equipment (e.g. stethoscopes, blood pressure cuffs and thermometers). If equipment needs to be shared among patients, clean and disinfect between each patient use (e.g. ethyl alcohol 70%).
- Refrain from touching eyes, nose or mouth with potentially contaminated hands.
- Avoid the movement and transport of patients out of the room or area unless medically necessary.
- Use designated portable X-ray equipment and/or other important diagnostic equipment.
- If transport is required, use pre-determined transport routes to minimize exposures to staff, other patients and visitors and apply medical mask to patient.
- Ensure that HCWs who are transporting patients wear appropriate PPE as described in this section and perform hand hygiene.
- Notify the receiving area of necessary precautions as soon as possible before the patient's arrival.
- Routinely clean and disinfect patient-contact surfaces.
- Limit the number of HCWs, family members and visitors in contact with a patient with suspected COVID-19 infection.
- Maintain a record of all persons entering the patient's room including all staff and visitors.

4.3.2 Airborne precautions for aerosol-generating procedures for suspected COVID-19:

Some aerosol generating procedures have been associated with increased risk of transmission of coronaviruses (SARS-CoV and MERS-CoV) such as nasopharyngeal swabbing, tracheal intubation, non-invasive ventilation, tracheotomy, cardiopulmonary resuscitation, manual ventilation before intubation and bronchoscopy. HCWs performing aerosol-generating procedures should note the following:

- Use a fit tested particulate respirator (certified N95).
- Always perform the seal-check when putting on a disposable particulate respirator (certified N95), always perform the seal-check.

- HCW that all available types of (N95) are not fit to him should be avoided from aerosol-generating procedures or use PAPR (Powered Air-Purifying Respirator).
- Facial hair (beard) prevents proper respirator fit; either avoid aerosol-generating procedures or use PAPR.
- Use eye protection (i.e. goggles or a face shield).
- Clean, non-sterile, long-sleeved gown and gloves, if gowns are not fluid resistant, use a waterproof apron for procedures with expected high fluid volumes that might penetrate the gown.
- Perform procedures in negative pressure rooms with at least 12 air changes per hour (ACH) and controlled direction of air flow when using mechanical ventilation.
- Limit the number of persons present in the room to the absolute minimum required for the patient's care and support.

4.4 Management of exposure to COVID-19 in healthcare facilities:

4.4.1 Healthcare workers exposed to a COVID-19 case:

- Healthcare facilities should identify and trace all health care workers who had protected (proper use of PPE) or unprotected (without wearing PPE or PPE used improperly) exposure to patients with suspected or confirmed COVID-19.
- The decision to permit a healthcare worker to resume his/her duties after an exposure to COVID-19 should be individualized. Infection control team will be ultimately responsible for taking that decision.
- The following are general guidelines, but management will depend on the infection control team risk assessment:

4.4.1.1 Asymptomatic healthcare workers WITH protected exposure OR unprotected low-risk exposure (more than 1.5 meters of the patient):

- Testing healthcare workers for COVID-19 is not recommended.
- Healthcare workers can continue their duties.
- Healthcare workers shall be assessed daily for 14 days post exposure for the development of symptoms.
- Healthcare workers should delay travel until cleared by infection control team.
- Asymptomatic healthcare workers WITH protected exposure OR unprotected low-risk exposure are considered CLEAR if they:
- **Remain asymptomatic AND**
- **The observation period is over (14 days post exposure)**

Please note, health care worker should be defined as all staff in the health care facility involved in the provision of care for a COVID-19infected patient, including those who have been present in the same area as the patient, as well as those who may not have provided direct care to the patient, but who have had contact with the patient's body fluids, potentially contaminated items or environmental surfaces. This includes health care professionals, allied health workers, auxiliary health workers (e.g. cleaning and laundry personnel, x-ray physicians and technicians, clerks, phlebotomists, respiratory therapist, nutritionists, social workers, physical therapists, lab personnel, cleaners, admission/reception clerks, patient transporters, catering staff etc.).

4.4.1.2 Healthcare workers who had unprotected high-risk exposure (within 1.5 meters of the patient) or have suggestive symptoms regardless of exposure type:

- Healthcare workers shall stop performing their duties immediately.
- Testing (Nasopharyngeal swabs) for COVID-19 is required (preferably 24hr or more after the exposure) Healthcare workers shall not resume their duties until cleared by infection control team.
- Healthcare workers should delay travel until cleared by infection control team.
- Healthcare workers who test positive for COVID-19 (regardless of the exposure type); healthcare workers who develop COVID-19 suggestive symptoms (regardless of the exposure type) and healthcare workers who had unprotected high-risk exposure are considered CLEAR if:
- They are asymptomatic for at least 48 hrs.

AND

- The observation period is over (14 days post exposure)

AND

- Had at least one negative RT-PCR for COVID-19.

4.4.2 Patients exposed to a COVID-19 case:

- Patients can be exposed to COVID-19 patients prior to diagnosis or due to the failure of implementing recommended isolation precautions.
- The following are general guidelines, but management will depend on the infection control team risk assessment:
- Patients sharing the same room (any setting e.g. Ward with shared beds, open ICU, open emergency unit...etc) with a confirmed case of COVID19 for at least 30 minutes:
- Testing (Nasopharyngeal swabs or deep respiratory sample if intubated) for COVID-19 is required (preferably 24hr or more after the exposure).
- Patients should be followed daily for symptoms for 14 days after exposure.

- If negative on initial testing, exposed patients should be retested with RT-PCR if they develop symptoms suggestive of COVID-19 within the follow up period.
- Patients discharged during the follow up period must be reported to public health department to continue monitoring for symptoms.

4.5. Transportation of Suspected and Confirmed Covid-19 Patients:

Patients, suspected or confirmed, will have to be moved safely between their homes to a health care facility as well as from health care facilities to dedicated COVID-19 management facilities. Acknowledging the challenges vehicular transportation of such patients pose including vehicle contamination and infection transmission, safe transfer is possible if the following recommendations are followed:

Precautions during Patient assessment:

- Where possible, ambulance staff should carry out initial assessment keeping a distance of at least 1.8m from the patient.
- For additional staff protection, the number of ambulance staff in the patient section of the ambulance should be restricted to the minimum required.
- It is best to limit contact with patient contact until a patient should be asked to wear facemask (if possible) is placed on him/her, this facemask reduces the ability of the patient to contaminate the immediate working environment of the ambulance staff.
- Oxygen delivery with a non-rebreather face mask may be used to provide oxygen support during transport. If needed, positive-pressure ventilation should be performed using a resuscitation bag-valve mask, preferably one equipped to provide HEPA or equivalent filtration of expired air.
- Family members and other contacts of patients should not ride in the ambulance if possible. If necessary, they should be asked to wear appropriate PPE
- In patients with nasal cannula in place, the facemask should be fixed over the cannula. It is also possible to use an oxygen mask when indicated.
- Additional recommendations for aerosol-generating procedures can be found in section (Airborne precautions for aerosol-generating procedures for suspected COVID-19)

4.6. Recommendations on Personal Protective Equipment (PPE) use.

- Ambulance staff providing care for or accompanying suspected or confirmed COVID-19 patients in the patient section of the ambulance should adhere to standard and transmission-based precautions including required PPE.
- In situations where personnel driving ambulances used to transport patients are involved in moving patients onto stretchers or other forms of direct care, it is

recommended that they strictly use recommended PPE. They should appropriately doff and dispose their PPE and perform hand hygiene after completing patient care and prior to re-entering the isolated driver's section. This will prevent contamination of the cubicle.

- In situations where the ambulance/vehicle lacks an isolated driver's section, it is recommended that the driver use a respiratory/face mask during transport. However, he should remove his face shield or goggles, gown and gloves and perform hand hygiene.
- Ambulance staff should avoid touching their faces while working.
- Upon arrival at the health care facility, and following patient hand over ambulance staff should doff and discard PPE and perform hand hygiene. They should discard used PPE following standard MOH procedures.

4.7. Recommendations for Ambulance Staff During Transportation:

The following recommendations apply to ambulance staff involved in the transport or transfer of a patient with an exposure history and signs and symptoms suggestive of SARS COV2 infection to a healthcare facility for advanced management while transporting the patient:

- Ambulance staff should notify the receiving healthcare facility that the patient has an exposure history and signs and symptoms suggestive of COVID-19 so that appropriate infection control precautions may be taken prior to patient arrival.
- To the extent possible, staff should ensure patients are isolated from non-patients. This includes not allowing family members and other contacts to accompany suspected and confirmed SARS COV2 infected patients in the ambulance. However, if they accompany the patient, they must wear a facemask.
- Ambulances with isolated driver and patient sections providing independent ventilation to each area is preferred. To assure driver isolation from the patient section, keep connecting doors and windows closed before bringing the patient into the ambulance.
- During the journey, ensure that ventilation in both sections are in the non-recirculated mode in order to optimize changes thereby reducing the presence of potentially infectious particles in the ambulance. Ambulances with rear exhaust fans can use it to remove air from the vehicle at the back. The use of It is preferable to use an ambulance fitted a HEPA filter coupled ventilator when transporting patients on mechanical ventilators.
- To use the ventilation in ambulances lacking a physically isolated driver section, open the outside air vents in the driver section should be opened and the rear exhaust ventilation fans turned on to the highest setting. This generates a negative pressure gradient in the patient area.
- The ambulance staff should complete the handing over process at the destination health care facility following standard procedures.

4.8. Recommendations relating to Patients care Documentation

- Only after the ambulance staff have completed patient hand over, PPE doffing and hand hygiene should they proceed to patient care documentation.
- The documentation should include a listing of all the HCWs that provided care for the patient (direct or indirect) and the level of contact.

4.9. Recommendations regarding Cleaning Ambulances after Transporting a Patient with Suspected or Confirmed COVID-19

- Once the patient has been handed over at the designated receiving health care facility, the ambulance should be aerated with several cycles of air changes by leaving its rear doors open. This will get rid of possibly infected particles.
- Prior to cleaning the ambulance, staff should don disposable gowns and gloves. Eye/face protection PPE (goggles, face shields or facemasks) are recommended if the cleaning procedure will generate splashes or sprays.
- Environmental cleaning and disinfection should be carried out following procedures consistently and correctly. This includes assuring adequate ventilation when chemicals are used by keeping doors open.
- Routine cleaning and disinfection procedures (e.g., using cleaners and water to pre-clean surfaces prior to applying approved disinfectant to frequently touched surfaces or objects for appropriate contact times as indicated on the product's label) are appropriate for SARS-CoV-2 in healthcare settings, including those patient-care areas in which aerosol-generating procedures are performed.
- Following approved procedures, the ambulance must be cleaned and disinfected ensuring that all contaminated surfaces including stretcher, rails, control panels, floors, walls and work surfaces are thoroughly cleansed approved disinfectant and in according to manufacturer's instructions.
- Clean and disinfect reusable patient-care equipment before use on another patient, according to manufacturer's instructions.
- Ambulance staff should keep to approved procedures for the containment and disposal of used PPE and regulated medical waste as well as laundering used linen. Avoid shaking the linen.

4.10. Recommendations to Ambulance Staff Post Care of a Suspected or Confirmed COVID-19 Patient: Follow-up/Reporting Procedures:

1. Ambulance staff should carry out follow-up/reporting measures required of them post care of a patient with suspected or confirmed SARS-CoV-2 infection. Their supervisors should implement regulations requiring monitoring, excluding from work,

etc. as pertains to HCWs having potential exposure to SARS-CoV-2 infected patients.

2. Ambulance staff are required to promptly inform their supervisor of exposures to a patient with suspected or confirmed SARS-CoV-2 infection who can ensure that appropriate action is taken.
3. Ambulance staff are required to report any unprotected exposure to patient with suspected or confirmed SARS-CoV-2 infection (e.g. not donning recommended PPE, compromised or inappropriate PPE, etc.) to their supervisor or infection control for appropriate evaluation and action.
4. Ambulance staff are required to monitor and report any fever or respiratory symptoms (e.g., cough, shortness of breath, sore throat). Upon developing symptoms, they should isolate themselves and inform their supervisor or infection control for appropriate evaluation and action.

4.11. Administrative controls:

- Establishment of sustainable IPC infrastructures and activities.
- HCWs training; patients' care givers education.
- Policies on early recognition of acute respiratory infection potentially due to COVID-19 - Access to prompt laboratory testing for identification of the etiologic agent.
- Prevention of overcrowding especially in the emergency department.
- Provision of dedicated waiting areas with clear signage of "Respiratory Waiting Area for symptomatic patients and appropriate placement of hospitalized patients promoting an adequate patient-to-staff ratio.
- Provision and use of regular supplies.
- IPC policies and procedures for all facets of healthcare provisions with emphasis on surveillance of acute respiratory infection potentially due to COVID-19 among HCWs and the importance of seeking medical care.
- Monitoring of HCW compliance, along with mechanisms for improvement as needed.
- Designating of centers that all confirmed cases of COVID-19 should be transferred and isolated in (Exceptions must be by Regional Command and Control Centers).

4.12. Environmental and engineering controls:

- Basic health-care facility infrastructures.
- Ensuring adequate environmental ventilation.
- Adequate environmental cleaning in all areas within a health-care facility.
- Terminal room cleaning at the time of discharge or transfer of patients.

- Physical separation of at least 1- 1.5-meter distance should be maintained between each suspect patient and others.

4.13. Collection and handling of laboratory specimens from patients with suspected COVID-19:

- All specimens collected for laboratory investigations should be regarded as potentially infectious.
- HCWs who collect or transport clinical specimens should adhere rigorously to Standard Precautions to minimize the possibility of exposure to pathogens.
- Ensure that HCWs who collect specimens use appropriate PPE (eye protection, medical mask, long-sleeved gown, gloves).
- The respiratory specimen should be collected under aerosol generating procedure, personnel should wear a particulate certified N95 respirator.
- Ensure that all personnel who transport specimens are trained in safe handling practices and spill decontamination procedures.
- Place specimens for transport in leak-proof specimen bags (secondary container) that have a separate sealable pocket for the specimen (i.e. a plastic biohazard specimen bag), with the patient's name label on the specimen container (primary container), and a clearly written laboratory request form.
- Ensure that health-care facility laboratories adhere to appropriate biosafety practices and transport requirements according to the type of organism being handled.
- Deliver all specimens by hand whenever possible. - DO NOT use pneumatic-tube systems to transport specimens.
- HESN Printed lab requisitions must be sent with samples and national lab reception report and result values must be updated on HESN on their corresponding time.

4.14. Environmental Cleaning and Disinfection After Suspected/Confirmed to Have COVID-19 patients Have Been in the Facility:

1. *In-patient rooms housing COVID-19 patients should be cleaned and disinfected at least daily and at the time of patient transfer or discharge*
2. *More frequent cleaning and disinfection may be indicated for high-touch surfaces and following aerosol producing procedures (e.g. tables, hard-backed chairs, doorknobs, light switches, remotes, handles, desks, toilets, sinks)*
3. *Cleaning staff should wear disposable gloves, surgical mask and isolation gowns for all tasks in the cleaning process, including handling of waste.*
4. *Cleaning and disinfection of the environmental surfaces should be with approved MOH disinfectant e.g. Hydrogen peroxide, quaternary ammonium chloride 4th*

generation that should be used on precleared, hard, non-porous surfaces in accordance with manufacturer's instructions for environmental surface disinfection.

5. *After patient transfer, terminal cleaning should be done using manual method and /or ultraviolet germicidal irradiation or hydrogen peroxide dry mist or vapor.*

5. LABORATORY DIAGNOSIS:

5.1 Specimen collection and shipment of SARS-CoV 2

- All staff who will be handling the SARS-CoV 2 should be trained for appropriate collection, specimen storage, packaging and transportation.
- When collecting the specimen avoid contamination and it is advised to have sufficient quantity of sampling in case of repeating the test or preform further characterization.
- Follow the appropriate precautions for safety during collection and processing of samples.

5.2 Laboratories to perform diagnostic testing:

At this stage, the laboratory testing for 2019-nCoV is performed at the national public health lab ONLY. Testing is performed to confirm a clinically suspected case and to screen contacts. Interim guidance on laboratory testing issued by WHO is accessible at:

https://www.who.int/publications-detail/laboratory-testing-for-2019-novel-coronavirus-(2019-ncov)-in-suspected-human-cases.

5.3 Samples to be collected:

1. Lower respiratory tract samples:

including endotracheal aspirate.

bronchoalveolar lavage fluid or sputum.

2. Upper respiratory tract samples:

a. Nasopharyngeal and oropharyngeal swabs in viral transport medium in separate tubes.

b. Nasopharyngeal wash/aspirate.

HESN request form is to be completed and must be attached with sample.

- The lower respiratory tract samples are preferred and advised that lower respiratory tract samples should be collected where possible. If patient does not have signs or symptoms of lower respiratory tract infection or lower tract specimens are not possible or clinically indicated, upper respiratory samples should be collected.

- Repeat testing should be performed if initial testing is negative and there is a high index of diseases suspicion. patients should be retested using a lower respiratory sample or, if not possible, repeat collection of a nasopharyngeal sample.
- A single negative test result, especially from upper respiratory tract sample, does rule out the infection. For in-patients, the frequency of sampling should be at least every 2- 4 days until there are two consecutive negative samples at least 24 hours apart.

5.4 Storage and Shipment of samples:

- Store samples at 2-8°C and ship on ice pack to RRL.
- Samples can be stored at 2-8°C for ≤48 hours,
- if longer storage is needed, samples should be stored at –70 °C.
- If sample is frozen at -70°C, ship on dry ice.
- Samples can be shipped to RRL free of charge via the courier, SMSA, following appropriate regulations. The RRL provides a courier service for sample transportation and pickup locations throughout the country for collection of samples from MOH hospitals and other Health care facilities.
- Specimens pick up can be requested from SMSA at the following number (8006149999)
- All specimens must be appropriately packaged and must be addressed to the Riyadh Regional Laboratory.
- Courier services are provided 7 days a week. - The courier will package and transport the samples in accordance with Category B transportation regulations and the WHO guidance on regulations for the transport of infectious substances 2019-2020.
- For detailed guidelines on Sample collection, packaging and shipping, please refer to MERS-CoV guidelines version 5.1.

6. TREATMENT:

- Since there no treatment recommendation is available, it is recommended to follow current MERS-CoV treatment guidelines until further information is available.
- However, it is necessary to transfer a confirmed COVID-19 case to a designated hospital in coordination with command and control center.
- Intensive supportive care with treatment of symptoms is the main approach to manage the infection in people.
- WHO published recommendations can be accessed at:

Up-to-date, there is no clinically approved antivirals therapy for COVID-19; newly tested antivirals for COVID-19 indication are not allowed to be used unless you and your institution are aware and enrolled in an approved clinical trial with approved IRB. Since there is lack of approved treatment options, there are few recommendations to be followed with confirmed cases.

The indication for use of antivirals was based on the expert advice and must be used only for confirmed case and under supervision of Infectious diseases consultants as presented in the following table:

Category	
Mild to moderate	**Severe**
1.If the patient has mild symptoms and no risk factors for poor outcome (age >60 years, cases with underlying co-morbidities, e.g., chronic cardiovascular disease, chronic respiratory disease, diabetes, cancer). **Home isolation or isolation in designated facilities may be considered based on assessment by public health team and CCC.** **2.** mild cases with risk factors for poor outcomes outcome (age >60 years, cases with underlying co-morbidities, e.g., chronic cardiovascular disease, chronic respiratory disease, diabetes, cancer) **-must be admitted to hospital for isolation for 14 days.**	Patient with≥ 1 of the following symptoms: - Respiratory rate ≥30/min (adults); ≥40/min (children < 5) - Blood oxygen saturation ≤93% - PaO2/FiO2 ratio <300 - Lung infiltration >50% of the lung field within 24-48 hours **-must be admitted to hospital for isolation for 14 days**
Supportive Care	
Treat symptoms - Consult Infectious Disease Specialist	Treat symptoms - ICU admission, decision by ICU treating team - Consult Infectious Specialist - Consider carefully antibiotics or antifungals according to local epidemiology
Antiviral Therapy	
- Consider staring hydroxychloroquine 400 mg every 12 hours for 1 day, followed by 200 mg BID up to Day 5 - If hydroxychloroquine is not available, consider chloroquine 600 mg (10mg/kg) at diagnosis and 300 mg (5 mg/kg) 12 hours later, followed by 300 (5 mg/kg) BID up to Day 5 or chloroquine	- Start hydroxychloroquine 400 mg every 12 hours for 1 day, followed by 200 mg BID up to Day 5 - If hydroxychloroquine is not available, consider chloroquine 600 mg (10mg/kg) at diagnosis and 300 mg (5 mg/kg) 12 hours later, followed by 300 (5 mg/kg) BID up to Day

phosphate 1000 mg at diagnosis and 500 mg 12 hours later, followed by 300 mg BID up to Day 5	5 or chloroquine phosphate 1000 mg at diagnosis and 500 mg 12 hours later, followed by 300 mg BID up to Day 5 - Consider alternative therapy (Lopinavir200mg/ Ritonavir50 mg) as 2 tabs PO BID for 7 days and (hydroxy) chloroquine up to 7 days
Precautions	
- Hydroxychloroquine &Chloroquine -Avoid Ibuprofen - Labs and work-up: CBC, Urea/Electrolytes, creatine, CRP, LFTs, Chest X-ray with additional G6PD screening if chloroquine will be used - Perform ECG every 3 days if initial QTc 400-500 msec, and biochemistry according to underlying disease	- Lopinavir/ritonavir -Avoid Ibuprofen - Labs and work-up: CBC, Urea/Electrolytes, creatine, CRP, LFTs, Chest X-ray with additional G6PD screening if chloroquine will be used - Perform ECG every 3 days if initial QTc 400-500 msec, and biochemistry according to underlying disease

https://www.who.int/publications-detail/clinical-management-of-severe-acute-respiratory-infection-when-novel-coronavirus-(ncov)-infection-is-suspected.

7. REPORTING AND RESPONSE:

7.1 Reporting of suspected Cases.

- The COVID-19 is an emerging pathogen, which is by default as category I reportable disease that should be immediately reported.
- All healthcare facilities must report suspected cases immediately through Health Electronic Surveillance Network (HESN).
- Failure of healthcare organizations and/or professionals to report reportable infectious diseases is punishable by law.

8.0 Duration of Isolation Precautions for Covid-19 Infection:

Confirmed Cases:

- ***For symptomatic confirmed patients***

- Re- testing must be done patient is clinically recovered.

- If result is positive, then repeat the test every 72 hours.

- In order to discontinue hospital isolation precautions, two negatives

samples 24 hours apart are required for all patients. After discharge, patients are recommended to continue 14 days of home isolation.

- ***For asymptomatic confirmed patients***

Re- testing must be done every 72 hours after confirmation
- In order to discontinue designated facility isolation precautions, two negative respiratory samples 24 hours apart are required for all patients. After discharge, patients are recommended to continue 14 days of home isolation.

Suspected Cases

1. All suspected cases must be tested initially with Covid-19 PCR
2. If suspected case is clinically stable, home isolation or isolation in designated facility may be considered based on assessment by public health team and CCC until result become available.
3. If patient is clinically unstable, must be admitted to hospital for isolation for 14 days.
4. If result of initial test is positive, patient is considered as confirmed case.

8.0 MANAGING BODIES OF DECEASED COVID-19 PATIENTS:

1. Deceased bodies of COVID-19 patients may pose a risk of infection transmission.
2. Isolation precautions should be continued to the dead COVID-19 patient.
3. Cadaver bags that fulfill MOH approved specifications should be used for transport of dead bodies of deceased COVID-19 patients and those handling the body at this point should use PPE (surgical mask, clean gloves, isolation gown).
4. The trolley carrying the body must be disinfected after transmission.
5. Only experienced morgue staff are dealing with bodies of deceased COVID-19 patients, the morgue's staff should be well trained, familiar with standard precautions and transmission-based precautions while handling dead bodies, especially hand hygiene, safe and proper use of PPE.

6. Morgue's staff should be informed about infectious status of the deceased, risk of infection and appropriate precautions required through use of Morgue's transportation card attached to the dead body or to the bag about the disease and transmission-based precautions required.
7. Prevents relatives from direct surface contact with the body such as touching or kissing it is acceptable to open the body bag for family viewing wearing PPE
8. The body is prepared for burial in mortuary department of the healthcare facility as It is forbidden to transport it to the home and it is only allowed to move it to public washing places after ensuring that there are equipment and trained people to deal with the dead bodies of infectious diseases.
9. Limit the number of morgue's personnel dealing with the dead body to the minimum number required.
10. All personnel performing or attending the body washing and preparation should wear PPE (surgical mask, isolation gown, clean gloves) and should perform hand hygiene after removal of the gloves.
11. If family members wish to perform the body washing, this should be under supervision must strictly adhere to standard precautions and use PPE.
12. Body washing of COVID-19 cases are preferably be done at hospitals. However, it can be safely performed in public washing facilities, If the dead body transmitted outside the healthcare facility to be prepared for burial the receiving facility should be informed by the disease, mode of transmission and precautions needed during body preparation, a public health worker is identified to accompany the body in order to ensure compliance with the required precautions throughout the pre-burial period.

8.1. Collection of Postmortem Upper Respiratory Tract Swab Specimens:

Since collection of nasopharyngeal and oropharyngeal swab specimens from deceased persons will not induce coughing or sneezing, a negative pressure room or HIPA filter are not required.

The following PPE should be worn:

- Clean gloves.
- Wear heavy-duty gloves over the gloves, if there is a risk of cuts, or other injuries that break the skin.
- Clean, long-sleeved fluid-resistant or impermeable gown.
- Face shield or a face mask and goggles.

8.2 Autopsy Procedures:

1. **Standard Precautions, Contact Precautions, and Airborne Precautions with eye protection** (e.g., goggles or a face shield) should be followed during autopsy.
    a. Aerosol Generating Procedures (AGPs) such as use of an oscillating bone saw should be avoided for confirmed or suspected cases of COVID-19. Consider using hand shears as an alternative cutting tool. If an oscillating saw is used, attach a vacuum shroud to contain aerosols

2. Allow only one person to cut at a given time.

3. Limit the number of personnel working in the autopsy room at any given time to the minimum number needed to conduct the autopsy safely.

4. Use caution when handling needles or other sharps, and dispose of
5. contaminated sharps in puncture-proof sharps containers.

6. A logbook including names, dates, and activities of all workers participating in the postmortem and cleaning of the autopsy room should be kept to assist in future follow up, if necessary

7. Autopsies on dead body of known or suspected COVID-19 patient should be conducted in Airborne Infection Isolation Rooms (AIIRs).

8. If an AIIR is not available, a portable HEPA unit.

9. Local airflow control (i.e., laminar flow systems) can be used to direct aerosols away from personnel. If use of an AIIR or HEPA unit is not possible, the procedure should be performed in the most protective environment possible.

The following PPE should be worn during autopsy procedures:

1. Double surgical gloves interposed with a layer of cut-proof synthetic mesh gloves

2. Fluid-resistant or impermeable gown

3. Waterproof apron

4. Goggles or face shield

5. Certified fit tested N-95 respirator (otherwise Powered air-purifying respirator (PAPR) with HEPA filter is used to provide respiratory protection during autopsy procedures).

6. Surgical scrubs, shoe covers, and surgical cap.

7. Remove PPE carefully to avoid contaminating yourself and before leaving the autopsy room or adjacent anteroom

8. Reusable PPE (e.g., PAPRs) must be cleaned and disinfected according to the manufacturer's recommendations.

9.

Immediately after doffing PPE, wash hands with soap and water for 20 seconds or use alcohol-based hand sanitizer if hands are not visibly dirty. Ensure that hand hygiene facilities are readily available at the point of use (e.g., at or adjacent to the PPE doffing area).

9). FORM/ EQUIPMENTS:

- Checklist
  PPE
- Alcohol Hand Rub Solutions
- PCR Request Form for The Suspected Cases.

10). RELATED POLICY / CROSS REFERENCES:

- Moh Guidelines for The Novel Corona Virus – 2019 nCoV January 2020.
- Moh guidelines for COVID 19 February 2020 version 1.1
- Moh guidelines for covid 19 March, 2020 version 1.2

11). APPROVAL:

	Name	Title	Signature	Date
Prepared by:	Dr Sher Agha	IP&C Head	DR. SHER AGHA HEAD OF INFECTIOUS CONTROL	20/4/2020
Reviewed by	Mr. Mutlaq Khalid Al Otaiby	Nursing Director	MUTLAQ KHALID AL OTAIBI Nurse Specialist SC No. 13-R-N- 0057585	21/4/2020
	Dr. Sher Agha	IP&C Head	DR. SHER AGHA HEAD OF INFECTION CONTROL	20/4/2020
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR	20/4/2020
	Mr. Khalid Bandar Al Mutairi	Quality Director		23/4/2020
Approved by	Mr. Abdul Aziz Jaser Al Shailan	Hospital Director		22/4/2020

12). POLICY AND PROCEDURE HISTORY:

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	APP-IC-NEW (2019-nCoV)	January, 2020
Replaced by New Policy and Procedure	APP-IC-COVID-19	March, 2020

APPENDIX 5

Visual Triage Checklist for Acute Respiratory Infection

Date:	Time	MRN:
Name:	ID#:	Hospital:

Circle the number reflecting the patient's condition (exposure and clinical picture) and calculate the final score:

Risks for Acute Respiratory Illnesses	**Score**	
A. Exposure Risks	***Any Patient (Adult or Pediatric)***	
A history of travel abroad in the past 14 days. **OR** A contact with a confirmed case of COVID-19 or MERS-CoV in the last 14 days prior to symptom onset. **OR** An exposure to camel or camel's products (direct or indirect*) in the last 14 days prior to symptom onset. **OR** Working in a healthcare facility.	**3**	
B. Clinical Signs and Symptoms	***Pediatric*** (≤14 years)	***Adult*** (>14 years)
1. Fever or recent history of fever.	**4**	**4**
2. Cough (new or worsening).	**4**	**4**
3. Shortness of breath (new or worsening).	**4**	**4**
4. headache, sore throat, or rhinorrhea	**1**	**1**
5. Nausea, vomiting, and/or diarrhea.	**1**	**1**
6. Chronic renal failure, CAD/heart failure, Immunocompromised patient.	**-**	**1**
Total Score		

*Patient or household member

A score ≥ 4, ask the patient to perform hand hygiene, wear a surgical mask, direct the patient through the respiratory pathway, and inform MD for assessment.

MRSE-CoV or COVID-19 testing should only be performed according to case definitions.

Staff name: _____ ID number: _____

13. APPENDIX

APPENDIX 1

Coronavirus Disease 2019 (COVID-19) Investigation Form

Date of initial notification: _____dd/_____mm/_____yyyy

Notification			
Name of who completed the form		Contact number	
Date		Email	
Hospital Name		City	
At the time of this report, is the case?	☐ Confirmed ☐ Suspected ☐ Case under investigation ☐ Not a case		

Patient Information			
Full name		Date of Birth	_____dd/_____mm/_____yyyy
Nationality			
Identification number:		Marital status	
Occupation	☐ HCW ☐ Non-HCW_____	Sex	☐ Male ☐ Female
Phone Number		Age	
Address	House No.:_____ Street name:_____ District _____ City:_____ Province/Region:_____		
Education			

Clinical Information

Date of symptoms onset	_____/_____/_____				
Symptoms	Yes	No	Symptoms	Yes	No
Fever ≥38º			Nausea		
History of fever (not measured).			Vomiting		
Sore throat			Headache		
Runny nose			Muscle pain		
Cough			Joint pain		
Shortness of breath			Diarrhea		
Other (specify):					

Hospitalization Information

Is/was the patient hospitalized?	☐ Yes, Date of admission ____/_____/_____ ☐ No		
Admitted to ICU?	Intubated?	On ECMO?	Patient died?
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

Comorbid conditions (check all that apply):
☐ None ☐ Unknown ☐ Pregnancy ☐ Diabetes ☐ Cardiac disease ☐ Hypertension ☐ Chronic pulmonary disease ☐ Chronic kidney disease ☐ Chronic liver disease ☐ Obesity ☐ Smoking (any type) ☐ Immunocompromised ☐ Other:_____
Epidemiological Information
Visiting and Travel History:

Did the patient travel in the 14 days prior to illness onset?	☐ Yes ☐ No ☐ Unknown

If yes, Trip 1: Dates of travel: ___/___/____ to ___/___/____ Country _____ City _____ Trip 2: Dates of travel: ___/___/____ to ___/___/____ Country _____ City _____ Trip 3: Dates of travel: ___/___/____ to ___/___/____ Country _____ City _____
In the 14 days prior to illness onset, did the patient have close contact with someone who travelled outside the Country?
☐ Yes ☐ No ☐ Unknown Please describe individual (including travel location)
If the patient was tourist/pilgrim, please complete information bellow:

Did the patient travel with?	☐ Airline ☐ Ship ☐ Bus ☐ Car ☐ Other_____

Airline Information:
Airline Name: _____ Flight Number: _____ Origin: _____
Date of arrival: ___/___/___ Date of departure: ___/___/___ Transit destination: _____
Other Trans Information:
Type of transportation: _____ Date of arrival: ____/____/_____ Port of entry: _____ Origin: _____
Resident Information after arrival:
Name of resident (hotel, Hajj campaign, ..etc.): _____ where: _____ Date of check in: ____/____/_____ Date of check out: ____/____/_____ Note: (Describe the timeline of contact movement)
Contact Exposure

Did the patient have contact with a known or suspect case, or with any sick person before becoming ill (14 days prior	☐ Yes Date: ☐ No ☐ Unknown

to illness onset)?	
Did the patient have contact with anyone during illness period?	
☐ Yes ☐ No ☐ Unknown ***If yes, please complete the list of patient contact in the end of report***	
In the 14 days before or after becoming ill, did the patient attend a public event where a large number of people were present (i.e., a sporting event, wedding, concert, Hajj and Umrah)?	
☐ Yes ☐ No ☐ Unknown	*If yes, please describe the event (include date and location)*
In the 14 days before or after becoming ill, did the patient visited any healthcare facility or setting?	
☐ Yes ☐ No ☐ Unknown	Specify healthcare facility/reason: _____

Animal Exposure:
Did the patient have direct/ indirect contact with any animals within the last 14 days?
☐ Yes ☐ No ☐ Unknown
If yes, please specify and describe the contact (what/when/where/extent)
Did the patient visit any of the following locations where animals may be present within the last 14 day?
☐ Yes ☐ No ☐ Unknown
If yes, check all that apply: ☐ Farm ☐ Petting zoo ☐ Agricultural event ☐ Live animal market ☐ Slaughterhouse ☐ Pet store ☐ Other:_____ Please describe (when/where/extent):
Did the patient has any other occupation that regularly deals with animal?
☐ Yes, specify_____ ☐ No ☐ Unknown
Note:

APPENDIX 2

List of patient's contacts					
Name of contact	Relation to patient	Last contact date	City	Sex	Phone
		____/___/____		☐ Male ☐ Female	
		____/___/____		☐ Male ☐ Female	
		____/___/____		☐ Male ☐ Female	
		____/___/____		☐ Male ☐ Female	
		____/___/____		☐ Male ☐ Female	
		____/___/____		☐ Male ☐ Female	
		____/___/____		☐ Male ☐ Female	
		____/___/____		☐ Male ☐ Female	
		____/___/____		☐ Male ☐ Female	
		____/___/____		☐ Male ☐ Female	

For follow up of contacts, use the contact tracking form to collect additional information.

APPENDIX 3

Contact Tracing Form

Novel Coronavirus

Name of the contact: _____ **ID/ Iqama number:** _____

Age: _____ **Nationality:** _____ **Phone #:**_____

Daily Contact Follow-Up Form			
1 Day after last exposure / /	**5 Day after last exposure** / /	**9 Day after last exposure** / /	**13 Day after last exposure** / /
☐ No symptoms ☐ Fever_____ °C ☐ Shortness of breath ☐ Sore throat ☐ Cough ☐ Headache ☐ Muscle/joint pain ☐ Diarrhea _____ times/day ☐ Vomiting/nausea ☐ Runny nose Others_____	☐ No symptoms ☐ Fever_____ °C ☐ Shortness of breath ☐ Sore throat ☐ Cough ☐ Headache ☐ Muscle/joint pain ☐ Diarrhea _____ times/day ☐ Vomiting/nausea ☐ Runny nose Others_____	☐ No symptoms ☐ Fever_____ °C ☐ Shortness of breath ☐ Sore throat ☐ Cough ☐ Headache ☐ Muscle/joint pain ☐ Diarrhea _____ times/day ☐ Vomiting/nausea ☐ Runny nose Others_____	☐ No symptoms ☐ Fever_____ °C ☐ Shortness of breath ☐ Sore throat ☐ Cough ☐ Headache ☐ Muscle/joint pain ☐ Diarrhea _____ times/day ☐ Vomiting/nausea ☐ Runny nose Others_____

APPENDIX 4

Contact Tracing Form

Novel Coronavirus

Name of the contact: _____ **ID/ Iqama number:** _____
Age: _____ **Nationality:** _____ **Phone #:**_____

Daily Contact Follow-Up Form

1 Day after last exposure ___/___/___	2 Day after last exposure ___/___/___	3 Day after last exposure ___/___/___	4 Day after last exposure ___/___/___	5 Day after last xposure ___/___/___
☐ No symptoms ☐ Fever ____ °C ☐ Shortness of breath ☐ Sore throat ☐ Cough ☐ Headache ☐ Muscle/joint pain ☐ Diarrhea ____ times/day ☐ Vomiting/nausea ☐ Runny nose Others _____	☐ No symptoms ☐ Fever ____ °C ☐ Shortness of breath ☐ Sore throat ☐ Cough ☐ Headache ☐ Muscle/joint pain ☐ Diarrhea ____ times/day ☐ Vomiting/nausea ☐ Runny nose Others _____	☐ No symptoms ☐ Fever ____ °C ☐ Shortness of breath ☐ Sore throat ☐ Cough ☐ Headache ☐ Muscle/joint pain ☐ Diarrhea ____ times/day ☐ Vomiting/nausea ☐ Runny nose Others _____	☐ No symptoms ☐ Fever ____ °C ☐ Shortness of breath ☐ Sore throat ☐ Cough ☐ Headache ☐ Muscle/joint pain ☐ Diarrhea ____ times/day ☐ Vomiting/nausea ☐ Runny nose Others _____	☐ No symptoms ☐ Fever ____ °C ☐ Shortness of breath ☐ Sore throat ☐ Cough ☐ Headache ☐ Muscle/joint pain ☐ Diarrhea ____ times/day ☐ Vomiting/nausea ☐ Runny nose Others _____
6 Day after last exposure ___/___/___	**7 Day after last exposure ___/___/___**	**8 Day after last exposure ___/___/___**	**9 Day after last exposure ___/___/___**	**10 Day after last exposure ___/___/___**
☐ No symptoms ☐ Fever ____ °C ☐ Shortness of breath ☐ Sore throat ☐ Cough ☐ Headache ☐ Muscle/joint pain ☐ Diarrhea ____ times/day ☐ Vomiting/nausea ☐ Runny nose Others _____	☐ No symptoms ☐ Fever ____ °C ☐ Shortness of breath ☐ Sore throat ☐ Cough ☐ Headache ☐ Muscle/joint pain ☐ Diarrhea ____ times/day ☐ Vomiting/nausea ☐ Runny nose Others _____	☐ No symptoms ☐ Fever ____ °C ☐ Shortness of breath ☐ Sore throat ☐ Cough ☐ Headache ☐ Muscle/joint pain ☐ Diarrhea ____ times/day ☐ Vomiting/nausea ☐ Runny nose Others _____	☐ No symptoms ☐ Fever ____ °C ☐ Shortness of breath ☐ Sore throat ☐ Cough ☐ Headache ☐ Muscle/joint pain ☐ Diarrhea ____ times/day ☐ Vomiting/nausea ☐ Runny nose Others _____	☐ No symptoms ☐ Fever ____ °C ☐ Shortness of breath ☐ Sore throat ☐ Cough ☐ Headache ☐ Muscle/joint pain ☐ Diarrhea ____ times/day ☐ Vomiting/nausea ☐ Runny nose Others _____
11 Day after last exposure ___/___/___	**12 Day after last exposure ___/___/___**	**13 Day after last exposure ___/___/___**	**14 Day after last exposure ___/___/___**	
☐ No symptoms ☐ Fever ____ °C ☐ Shortness of breath ☐ Sore throat ☐ Cough ☐ Headache ☐ Muscle/joint pain ☐ Diarrhea ____ times/day ☐ Vomiting/nausea ☐ Runny nose Others _____	☐ No symptoms ☐ Fever ____ °C ☐ Shortness of breath ☐ Sore throat ☐ Cough ☐ Headache ☐ Muscle/joint pain ☐ Diarrhea ____ times/day ☐ Vomiting/nausea ☐ Runny nose Others _____	☐ No symptoms ☐ Fever ____ °C ☐ Shortness of breath ☐ Sore throat ☐ Cough ☐ Headache ☐ Muscle/joint pain ☐ Diarrhea ____ times/day ☐ Vomiting/nausea ☐ Runny nose Others _____	☐ No symptoms ☐ Fever ____ °C ☐ Shortness of breath ☐ Sore throat ☐ Cough ☐ Headache ☐ Muscle/joint pain ☐ Diarrhea ____ times/day ☐ Vomiting/nausea ☐ Runny nose Others _____	

Note

Region: _____ Public Health Investigator: _____

ADMINISTRATIVE POLICY AND PROCEDURE (APP)			
DEPARTMENT: INFECTION CONTROL			SECTION:
TITLE/DESCRIPTION			POLICYNUMBER &VERSION
Screening Procedure for all Admissions and Transfers to Critical Care Units			**APP-IC-NEW**
EFFECTIVE DATE	REVIEW DATE	REPLACES NUMBER	NO. OF PAGES
OCTOBER 1, 2020	December 31, 2022	**APP-IC-NEW**	11
APPROVED BY		APPLIES TO	
HOSPITAL DIRECTOR		**All Medical and Nursing Personnel in Critical Care Units.**	

1. STATEMENT OF PURPOSE:

1.1. Guidelines are provided to prevent the spread of MDROs & Outbreak

2. DEFINITIONS:

2.1. **MRSA:** refers to strains of Staphylococcus *aureus* that are resistant to synthetic penicillin (oxacillin, nofloxacin, and methicillin). It is also resistant to cephalosporin, other beta-lactam antibiotics and sometime to other antibiotics (erythromycin, clindamycin, aminoglycoside, and quinolones).

2.2. **MDRO:** Multidrug Resistant Organisms.

2.3. **VRE:** Vancomycin Resistant Enterococcus

3. POLICY STATEMENT:

Afif General Hospital policy states that for Management of newly admitted patient or transferred patients in critical care units for screening. Early detection of patients colonized or infected with MDR Gram–negative organisms is important for managing their status effectively, and for implementing timely interventions to prevent spread. Screening of potential colonization sites (e.g. faces) is essential in limiting the spread of carbapenemase produces in hospitals. Identification of other MDR Enterobacter is useful to identify those patients who may need carbapenem, if treated empirically.

3.1 All critical care units (ICU, NICU) patients upon admission in the units either new admission or transferred patients from other units or outside hospital, except neonates delivered in Afif General Hospital.

3.2 Active screening rather than passive surveillance is recommended for high risk area.

3.3 Active surveillance is a method used to increase the detection of MDROs and by doing so, decrease the silent transmission of MDROs.

3.4 A rectal swab or stool sample and urine sample if catheter present must be used for screening for MDR Enterobacter and Pseudomonas aeurginosa. For Acinetobacter spp, skin sites should be sampled if catheter or endo-tracheal tube is present, urine & respiratory secretions sampled.

3.5 Screening of patients in critical care units by culturing the nares of patients for MRSA or the rectal swab for VRE and other Gram negative or Gram positive pathogens its rapid detection methods have been used to increase the rapidity with which screening results are obtained.

The rationale behind active surveillance is that MDROs can be spread by asymptomatic patients who are simply colonized rather than infected (i.e., a silent reservoir).

3.6 Patients with previous samples with carbapenem –resistant or other Gram negative bacteria should be screened at the time of admission.

3.7 In the event of secondary cases of carbapenem –resistant enterobacteriaceae, standard infection precautions and contact precautions should be monitored and re-in forced among clinical staff screening of patients not identified as carriers should be repeated weekly and on discharge from affected units until no new cases are identified for more than seven days.

4. RESPONSIBILITIES:

4.1. Medical personnel
4.2. Nursing personnel

5. PROCEDURE:

5.1. All critical care units' patients will be screened upon admission and rectal swab for identifying any Gram negative or Gram positive bacteria. The nurses are responsible for obtaining the swabs.

5.2. All admission in the units either new admission or transferred patients from other units or outside hospital, except neonates delivered in Afif General Hospital are included in the screening.

5.3. Initiate empiric contact isolation precautions beside the standard precautions during the screening procedure with contact precaution sign (if possible if not use cohorting).

5.3.1. Patients to be screened:

5.3.1.1. Admitted to the Intensive Care Units, NICU.
5.3.1.2. Transferred from other hospitals or have been treated in another hospital/clinic within the past six months.
5.3.1.3. Known to be previously any Gram negative or gram positive or MDROs.
5.3.1.4. Roommates of positive patients not on isolation precautions.
5.3.1.5. Receiving patients from healthcare facility with ongoing outbreak of VRE, Candidia Auries and other MDROs.
5.3.1.6. Patients with persistent diarrhea

5.3.2. Sites to screen include:

5.3.2.1. Anterior nares.
5.3.2.2. Non intact skin areas (e.g., tracheostomy, pressure sores or surgical wounds).
5.3.2.3. Neonates and pediatric patients awaiting liver or cardiac surgery should also have both the groin and auxiliary screened.
5.3.2.4. Rectal swab for Gram negative or Gram Positive, for initially identify for any positive.
5.3.2.5. Rectal swab for VRE
5.3.2.6. Screening for Candidia Auries

5.3.3. Specimen collection:

5.3.3.1. Use standard precautions for collecting specimen.

5.3.3.1.1. Hand hygiene
5.3.3.1.2. Aseptic technique
5.3.3.1.3. Personnel protective Equipment.
5.3.3.1.4. Use appropriate collection of devices.
5.3.3.1.5. Use sterile equipment and aseptic technique to collect specimen.

5.3.4. Specimen collection guideline
5.3.4.1. Collect specimen during the acute phase of illness (or within 2-3 days for viral infections)
5.3.4.2. Collect specimens before administration of antibiotic wherever possible.
5.3.4.3. Collect specimen during the acute phase of illness (or within 2-3 days for viral infections).
5.3.4.4. Collect a sufficient volume of specimen to ensure that all tests requested may be performed inadequate amount of specimen may yield false-negative results.
5.3.4.5. Label specimen properly with patients name and identification number, source, specific site, date, time of collection and initials of collector.
5.3.4.6. Provide clear and specific instruction on proper collection technique to patients when they must collect their own specimen.

5.3.5. Transportation guidelines include
5.3.5.1. All specimens must be promptly transported to the laboratory, preferably within 2 hours of collection.
5.3.5.2. Delays or exposure to temperature extreme compromises the test results.
5.3.5.3. Specimen should be transported in a container designed to ensure survival of suspected agents.
5.3.5.4. Never refrigerate spinal fluid, genital, eye, or internal ear specimens because these samples may contain microorganisms sensitive to temperature extreme.

5.3.6. Common specimens sent for cultures:
5.3.6.1. Respiratory tract specimens.
5.3.6.1.1. Nares swab:
5.3.6.1.1.1. Swab anterior nare of nostrils with one swab.
5.3.6.1.1.2. Wet the swab before taking specimen
5.3.6.1.1.3. Twist swab inside each nostril for at least 5 rounds.
5.3.6.1.2. Throat swab:
5.3.6.1.2.1. Touch the infected /inflamed area only (red/white patches).
5.3.6.1.2.2. Touch tonsils /peri-tonsilar parts
5.3.6.1.2.3. Avoid back of tongue, uvula that are contaminated with oral flora.
5.3.6.1.3. Nasopharyngeal
5.3.6.1.3.1 Push the swab 1 inch into patient nostril then push in perpendicularly until you face resistance (Refer to Correct technique for taking a Nasopharyngeal swab in INFECTION PREVENTION & CONTROL GUIDELINES FOR PATIENTS WITH MIDDLE EAST RESPIRATORY

5.3.6.2. Lower respiratory tract samples:

5.3.6.2.1. Ensure patient cough deeply to produce proper specimens, which is more likely to be obtained in the morning.

5.3.6.2.2. Do not send saliva that is contaminated.

5.3.6.2.3. If necessary, seek the help of chest physiotherapist to obtain sputum specimen.

5.3.6.2.4. State on request form if nebulizer is used for sputum induction to avoid mistaken as saliva.

5.3.6.3. Urine for Culture

5.3.6.3.1. For regular patient (midstream):

5.3.6.3.1.1. Cleanse external genitalia with soap and water

5.3.6.3.1.2. Catch the v mid-stream for 10-50 ml

5.3.6.3.1.3. Instruct patient to avoid contamination of the container with skin or hair

5.3.6.3.2. Patient with urinary catheter

5.3.6.3.2.1. Disinfect the catheter junction or aspiration port with alcohol swab

5.3.6.3.2.2. Aseptic aspiration of 10 ml of urine by sterile syringe and needle

5.3.6.3.2.3. Don't collect urine from the urinary bag and don't send urinary catheter tip for culture

5.3.6.4 Wound swabs

A wound culture is a laboratory test in which microorganisms from a wound are grown in a special growth medium

It is done to find and identify the microorganism causing an infection in a wound or an abscess. If a microorganism is found, more testing is done to determine the antibiotics that will be effective in treating the infection

5.3.6.4.1 Irrigate wound with normal saline.

5.3.6.4.2 Using a sterile swab, press the swab into the wound or material. Then the nurse should gently turn the swab to collect as much tissue or fluid possible

5.3.6.4.3 Following collection, place the swab back in the sterile plastic sleeve

5.3.6.5 Blood Cultures

5.3.6.5.1 Collection of blood:

5.3.6.5.1.1 Blood should be collected before antimicrobial treatment has started

5.3.6.5.1.2 Collect the blood as the temperature of patient begins to rise

5.3.6.5.1.3 At least two specimens (collected at different times) should be cultured

5.3.6.5.1.4 Aseptic blood collection

5.3.6.5.1.5 To minimize risk of contamination of the blood specimen with common commensals
5.3.6.5.1.6 Wash hand appropriately
5.3.6.5.1.7 Disinfect the venipuncture site with Chlorhexidine (CHG)and allow to dry the area special consideration in pediatric, CHG products are not approved for use with infants younger than 2 months of age .Iodine containing compounds or 70% isopropyl alcohol is an alternative.
5.3.6.5.1.8 Using a sterile syringe, withdraw 20 ml blood (10 ml/ set), need 2-3 sets in 24 hrs. period
5.3.6.5.1.9 Single blood culture should never be drawn from adult patients as these results can be misleading.

5.4 Place a CONTACT Isolation Sign on the outside of the isolation room door or on the bed if the patient is sharing a room.**(Refer to Attachment B)**
5.4.1 Follow empiric contact isolation during screening procedure.
5.4.2 Ensure that all staff understand and comply with the isolation precautions and hand hygiene policy.
5.4.3 Change all PPE and perform hand hygiene between patients in the same room (barrier precautions).
5.4.4 Cohort non-critical items such as stethoscopes and pressure cuffs along with each patient.
5.4.5 Store the minimum amount of supplies in the patient room.
5.4.6 Limit the patient's activities outside of the ward.
5.4.7 Notify receiving departments/wards (e.g., Radiology, Clinics, OR) of the patient's isolation status when the patient must be transported for treatment/tests
5.5 Laboratory department will immediately notify Infection Prevention and Control Department/ICP responsible for the area, responsible physician on duty hours, Responsible department, Nursing Supervisor, responsible physician during off duty hours or weekends, of any positive cultures, to state proper isolation precautions**(Refer to EXPANDED PRECAUTIONS (ISOLATION PRECAUTIONS) APP-IC-007(4) policy).**
5.6 Management of MRSA-positive patients & MDROs
5.6.1 Microbiology Laboratory:
5.6.1.1 Notify the ward of positive results of the patients.
5.6.1.2 Notify the Infection control practitioner (ICP) of all new positive cultures & MDROs & panic results of cultures.
5.6.2 Nursing:
5.6.2.1 Arrange for a single room for contact isolation. If a single room is not readily available, two or more MRSA-positive patients & MDRO patients can be cohorted after consultation with infection prevention and control department.
5.6.2.2 Positive cultures patients who are in multi-bed rooms can be managed temporarily while waiting to be transferred to a single room or an appropriate cohort.

5.6.2.3 Place a sign on the cubicle or curtains of the patient's bed

5.6.2.4 Ensure easy access to PPE and alcohol-based hand rub

5.6.2.5 Practice strict standard precautions between interactions with patients in the Room

5.6.2.6 ICU Patients to give daily bathing with Chlorhexidine gluconate, it can be reduced the skin contamination of the patients. Daily bathing of ICU patients with chlorhexidine gluconate led to lower rates of MRSA Colonization, and all types of blood stream infection (CHG products are not approved for use with infants younger than 2 months of age)

5.6.2.7 Cohorting is the practice of grouping patients either infected or colonized with specific MDROs in the same physical location (e.g. Room, ward or unit) or assigning dedicated healthcare workers to care exclusively for this group of patients.

5.6.3 Medical:

5.6.3.1 Restrict antibiotic use (especially broad-spectrum antibiotics) and invasive devices when possible.

5.6.3.2 Discharge the patient when his/her medical condition allows.

5.6.3.3 Seek the advice of Infectious Diseases Consultants or ICPs whenever necessary

5.6.4 Discontinuation of contact isolation

5.6.4.1 Discontinuation of isolation precautions for a MRSA-positive patient& MDROs must occur in consultation with the ICP and MRP.

5.6.4.2 Criteria for discontinuing isolation for MRSA positive patients:

5.6.4.2.1 Antibiotic therapy is completed at least three days prior to rescreening.

5.6.4.2.2 Vancomycin levels should be zero prior to rescreening (if could be measured).

5.6.4.2.3 Three consecutive negative culture results (taken 3 days apart) taken from nares and all previously positive sites.

5.6.4.2.4 The patient should not be receiving antibiotic therapy at any time during the screening process

5.6.4.3 Screening of healthcare workers (HCWs) and the environment

5.6.4.3.1 Do not screen HCWs or the environment because it is not normally indicated and incurs unnecessary costs.

5.6.4.3.2 IP&C may initiate such measures when indicated

5.6.4.4 Criteria for discontinuing isolation for MDRO positive patients

5.6.4.4.1 when three or more surveillance cultures for the target MDRO are repeatedly negative over the course of a week or two in a patient who has not received antimicrobial therapy for several weeks, especially in the absence of a draining wound, profuse respiratory secretions,

5.6.4.5 Linen

5.6.4.5.1 Place linen in hot water soluble bags and then into red hamper.

5.6.4.6 Ambulation

5.6.4.6.1 Patients with infected body fluids

5.6.4.6.2 If they are able to contain their body fluids (secretions, urine, stool),

5.6.4.6.3 patients may walk in the corridors but cannot enter the visitor/patient area.

5.6.4.6.4 If unable to contain their body fluids, patients must be encouraged to stay in their rooms and be reassessed frequently

5.6.4.7 Sitters/visitors

5.6.4.7.1 Provide information about MDROs as required, and documented in patients file.

5.6.4.7.2 Hand hygiene must be emphasized after patient contact.

5.6.4.7.3 Sitters and visitors must be instructed to wear appropriate PPE if assisting with direct patient care

5.6.4.8 MRSA Decolonization Procedure

5.6.4.8.1 **Refer to MRSA APP-IC-022(4) policy**

5.6.4.9 Notes:

5.6.4.9.1 The patient must not be on antibiotics at the time of screening

5.6.4.9.2 If any swab is positive, stop the screening process until further assessment.

6. REQUIRMENT & MATERIALS:

6.1 Isolation tags
6.2 Personnel protective equipment
6.3 Hand hygiene products
6.4 Transportation card

7. ATTACHMENTS:

7.1 Transportation card
7.2 Contact isolation sign
7.3 Path way : Screening procedure for critical care admissions.

8. CROSS REFERENCE(S):

9.1 MANAGEMENT OF PATIENT WITH METHICILLIN RESISTANT STAPHYLOCOCCUS AUREUS (MRSA) APP-IC-022(4) policy
9.2 EXPANDED PRECAUTIONS (ISOLATION PRECAUTIONS) APP-IC-007(4) policy
9.3 INFECTION PREVENTION & CONTROL GUIDELINES FOR PATIENTS WITH MIDDLE EAST RESPIRATORY SYNDROME CORONA VIRUS (MERS CoV) APP-IC-033(3) policy.
9.4 MANAGEMENTS OF MDRO's (APP-IC023(4).

9. REFERENCES:

10.1 Infection Control National guidelines.

10.2 GCC manual 2018 ICM-IV-02 and 03.
10.3 Management of Multidrug-Resistant Organisms in Healthcare Settings 2006 (CDC).
10.4 Guide to the Elimination of Methicillin-Resistant Staphyloccus aureus (MRSA) Transmission in Hospital Settings, 2nd Edition 2010 (APIC)
10.5 Guide to the Elimination of Multidrug-resistant Acinetobacter baumannii Transmission in Healthcare Settings 2010 (APIC).
10.6 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings 2007,CDC (Last update: July 2019).

10. POLICY HISTORY:

Policy and Procedure History	Index &Version number	Date
Initial Policy and Procedure	APP-IC-NEW (Screening Procedure for all Admissions and Transfers to Critical Care Units)	OCTOBER 1, 2020
Deleted:	-	-
Replaced by New Policy and Procedure	-	-

11. SIGNATORY APPROVALS:

	Name	Title	Signature	Date
Prepared by	Maher Masoud Alotaibi	IC Practioner	Maher Masaud Al-Otaibi Infection Control Department	20 SEP 2020
Reviewed by	Dr. Sher Agha	Head of Infection Control	DR. SHER AGHA HEAD OF INFECTION CONTROL	20 SEP 2020
	Mr.Mutlaq Khalid Alotaibi	Nursing Director	Mutlaq Khalid Al-Otaibi Nursing Director 13RN0057395	20 SEP 2020
	Dr. Ahmed Hassan	Medical Director	DR. AHMED HASSAN MEDICAL DIRECTOR	20 SEP 2020
	Mr. Khalid Bandar Al Mutairi	Quality Director	Mr. Khalid B. Al Mutairi	20 SEP 2020
Approved by	Mr.Abdulaziz Jasir Alshalani	Hospital Director		20 SEP 2020

Attachment A: Transportation card

وزارة الصحة
Ministry of Health
الإدارة العامة لمكافحة عدوى المنشآت الصحية
General Directorate for Infection prevention and Control

TRANSPORTATION CARD

CONTACT PRECAUTIONS العزل التلامسي

1 Notify the receiving unit/ward/department (Diagnosis, Type of Isolation Precautions).

1 إبلاغ القسم المستلم (التشخيص - نوع العزل).

2 **Prepare the patient for transportation :**

- Dress wounds with impervious dressings.
- Dress the patient in a clean gown.
- Cover patient with clean sheet.
- HCW should wear clean gloves and perform hand hygiene after taking off .

2 **يتم تحضير المريض للنقل كما يلي:**

- تغطية جروح المريض بضماد غير منفذ للسوائل.
- إرتداء المريض لرداء طبي نظيف.
- تغطية المريض بملاءة نظيفة.
- يجب على الممارس الصحي إرتداء القفازات النظيفة ونزعها بعد الإنتهاء من نقل المريض وممارسة تطهير الأيدي.



3 Staff should disinfect the patient's bed / wheeled chair using MOH approved disinfectant.

3 يجب على الممارس الصحي تطهير السرير/ الكرسي المتحرك المستخدم لنقل المريض بعد النقل باستخدام المطهرات المعتمدة بوزارة الصحة.

Use clean gloves

Attachment: B

وزارة الصحة
Ministry of Health
الإدارة العامة لمكافحة عدوى المنشآت الصحية
General Directorate for Infection Control of Health Facilities

إحتياطات العزل التلامسي
CONTACT PRECAUTIONS

يجب على الزوار مراجعة مكتب التمريض قبل الزيارة
VISITORS : Report to nurse's station before entring the room

All HCWs and visitors must do the following:

على جميع الممارسين الصحيين و الزوار اتباع التالي:

before patient room or care area entry :
1- Practice hand hygiene .
2- Wear isolation gown and gloves.

قبل دخول الغرفة او منطقة المريض:
1- ممارسة نظافة الايدي.
2- ارتداء مريول العزل و القفازات .



before exit from patient room or care area :
1- Remove gown and gloves and discard as medical waste.
2- Practice hand hygiene .

قبل الخروج من غرفة المريض أو منطقة المريض:
1- يتم خلع مريول العزل والقفازات والتخلص منها في حاوية النفايات الطبية .
2- ممارسة نظافة الايدي.

الإدارة العامة لمكافحة عدوى المنشآت الصحية
General Directorate for Infection prevention and Control

Attachment: C

Infection Prevention & Control Measures During Screening Procedure for Critical Care Admissions

SCREEN ALL:

- Admissions to the Intensive Care Units, NICU.
- Transferred from other hospitals or have been treated in another hospital/clinic within the past six months.
- Known to be previously any Gram negative or gram positive or (CRE, MRSA MDROs, VRE & Candidia Auris)

Roommates of positive patients not on isolation precautions.

SITES: Anterior Nares, Wound, Invasive Lines, Skin, Perianal

Initiate empiric contact isolation precautions during the screening & (STANDARD PRECAUTIONS MUST BE OBSERVED FOR ALL PATIENT

Place a contact isolation sign on the outside of the isolation room door or on the bed if the patient is sharing a room.

RESULT

POSITIVE

CONTINUE CONTACT PRECAUTION
Change all PPE and perform hand hygiene between patients in the same room (Barrier precautions)

Patient placement:
Single room or can be cohorted with another patient with the same organism

DISCONTINUE ISOLATION:
Consultation with the ICPs. & NEGATIVE CULTURE REPORT

NEGATIVE

Continue standard precautions